/138 cont./

177 Since contact with the Whites was established, wars have
721 apparently declined considerably, but even today they exact a
decidedly heavy toll.

22 The Auin is at the lowest stage of human development; he is exclusively a collector and hunter.

This way of life is dictated to him by the nature of his en-
133 vironment. This part of the Kalahari, where the watering places
137 are sometimes 100 kilometers apart and very limited in number,
182 does not permit livestock raising, especially also since the
tschama [sometimes spelled tsama, a kind of melon] enjoyed by
the cattle is comparatively rare.

In the Auin region the plain dominates the landscape.
133 Primary rocks rise up here and there only along the river banks.
So-called dunes give the landscape a gently hilly character, espe-
cially in the vicinity of the rivers (dry river beds which carry
137 water only after violent rains). The ground cover alternates be-
tween grass, shrub, and tree steppe and dense undergrowth. The
132 amount of precipitation is very small; the lack of sufficient sta-
tistical data makes it impossible to give a more precise estimate.

B. Dwellings and Furnishings

342 The typical form of the dwelling is the windscreen, in other words, the most primitive form of human habitation, which scarcely deserves the designation "hut." Its construction is completed in a few minutes. A few twigs are stuck loosely into the ground at the thicker end in a semicircle and propped against each other at the branching end. I have never seen the supports firmly fastened to one another, although I have examined several hundred huts. Grass is thrown on the framework, and the construction is finished. During the dry season the structures are usually built even more hastily and sometimes consist merely of a few bundles of grass that have been thrown loosely between the twigs of a living bush. The entire structure is often scarcely a meter high and has no roof. It is thus a genuine windscreen, intended to protect its inhabitants from drafts while they are lying down.

If the settlement remains at a particular place for only a few days, the people content themselves with the shadow of some

DAMA

[12 cont.]

000 439 occupation. Even among the nomadic groups, however, meat, hides, and so forth are commonly traded for millet.

Also, the Blacks like to have veldkost on their table,
[222] and the Bushmen, like our sponge and berry gatherers, use their
knowledge to supply them and carry on petty trade with their
veldkost, as well as with honey.

222 This is the reason that veldkost, which is either scarce
137 or not very tasty, is not gathered at all any more; indeed, the
● knowledge of its presence is even disappearing. We must also
not forget that the black shepherd boys long ago acquired the
knowledge of the Bushmen by observing them. As a result, the
number of those interested has naturally climbed sharply, and the
veldkost plants have become rare. The following kinds are still
regularly gathered:

222 /airoba (ombimbo)	Sweetish, very starchy tubers, like large potatoes.
/érui (omauunga)	Galls on the leaves of the omsati tree.
≠gan-i (esarata)	Small fruit.
!Khui-i (oombi)	Dates.
!Korob-ke (oompali)	Bulbs at the roots of a liana.

251 439 Dried meat is made from kudu flesh, which in part is kept and in part sold.

278 [13] Arrow poison is made from the sap of a tree
(Euphorbiacea), !Khores-Ke. The Ondonga themselves make no
[439] arrow poison, but buy it from the Bushmen for one to two sh per
752 portion. There is no medicine against arrow poison. Deep incisions are made at the place where the arrow entered, and after
blood has flowed freely from the wound, it is sucked. In the
case of snakebite the same procedure is followed, and some arrow
poison is placed on the wound (!!!).

278 609 Our Bushmen denied any knowledge of poisons added to food. Only the "evil Bushmen" in the east had such knowledge, they claimed. This statement scarcely deserves credence.

177 In clothing, dwellings, and weapons, as well as ornaments, not much that is original remains. The process of Bantuization is much further advanced in the material culture than in the spiritual culture. It is, after all, easier to part with clothing than with ideas.

[16 cont.]

131 the one hand, to the Okovanggo and the regions inhabited by the Bamangwato [Ngwato] west of Ngami Lake on the other hand, are inhabited by the tribes of the !Kung group.

Seiner (2) supplies the following apt division of this zone:

[113] 2. Mitteilungen aus Deutschen Schutzgebieten, 1914.

"The !Kung Veld forms the part of the Omaheke belonging to the northern Kalahari and is located between the Okovanggo (from Kagere to 19° southern latitude), the Kaukau Veld, the Sand Veld, the Karst Veld, the Etosha Pan, and the Otjimpolo Veld. -- The Kaukau Veld (according to Passarge, a plateau) is located between the Kung Veld, the Okovanggo, the Okovanggo basin, and the Sand Veld district. As the western boundary, in other words, toward the Sand Veld, the line Bogara -- Debra -- Blue Bush Pan in the western tip of the Okovanggo basin, close to the German border, should be adopted. The northern Sand Veld, through which I have traveled, can be delimited on the west by the line Nuragas -- Otjituo and by the valley of the Omatako from Otjituo to Okahitua; on the south by the line Okahitua -- Okosondusu -- Otjosonjou -- Epata -- Epukiro -- Rietfontein-East; on the east by the border zone of the Chanse Veld, the Okovanggo basin, and the Kaukau Veld. For the 137 northern boundary toward the Kung Veld, the factors of climate and plant geography must be taken into consideration, since there is no natural boundary here; the line Bogara -- Kanovlei -- Nuragas approximately forms the northern boundary of the Kalahari bush of the central Kalahari, which is sharply differentiated from the dry forest of the northern Kalahari. -- The loose, [134] deep, leached steppe sand bears for the most part a tall, light xerophytic dry forest, usually with no underbrush and with deciduous trees that, as a result of the quantities of water stored in their root stalks and trunks, bear green leaves during the greater part of the dry season, and in part even bear blossoms and fruit during this season; this dry forest is a formation of relatively recent date. The vegetation of the firm, gray-humus, [134] loamy river sand, or of the looser sand with ample ground

3: Lebzelter--27 E-5 (1926-1928) 1934 FX10 Bushmen FX10
!KUNG

/16 cont./

[134] 137 saturation and ground water, is a dry forest of a different type which corresponds to Warburg's lowland forest and, in contrast to the light dry forest of the looser sand, is distinguished by a relatively high density. -- The dry forest steppe occupies the largest areas of the !Kung Veld, and /17/ lowland forest and grass steppe form only modest enclaves in it. Within the dry forest, at those places where the nature of the terrain makes possible the accumulation and preservation of relatively significant quantities of water or ground humidity, there are individual trees that are to be regarded as remnants of a former compact lowland forest, and the floristic composition of such forest islands leads to the conclusion that the entire region, with the exception of the primary grass steppes, whose floor probably never displayed taller vegetation because of its sterility, was once covered by a lush lowland forest as is preserved in its finest form at present in the northern Kalahari and in the 'rain forest' of Victoria Falls."

101 [131] By the !Kung Bushmen in the narrower sense, who are divided into a northern group and an eastern group, I refer to those people who are located north of the police zone and south of the Okovanggo in the effluent region of the Omuramba u Owambo at the Löwenomuramba and on both sides of the lower and central Omuramba u Omatako. The groups in the source region of the Omuramba u Owambo have been studied by me in 174 greater detail. In former times, the !Kung undoubtedly lived much farther south and west. It is not improbable that they left the Grootfontein plain and the Otawi mountains under the pressure of the Hei//om, who in turn were forced out of the central region by the Herero. On the other side they undoubtedly gained space toward the south, for according to reports from the pre-war period, the Nogau were settled in the Sand Veld all the way to the vicinity of Otjituo, whereas today they have retreated 144 behind Alexeck. The racial composition of the !Kung Bushmen allows one to make a conclusion about their history. Among them we find a larger number of Europoid types than among the surrounding Bantu tribes. In addition, Austroloid influence is

[17 cont.]

144 obvious, and the southern Bushman race, that is, the one that displays the characteristics generally ascribed to the Bushmen as a whole, is found to be pure only to a modest degree which in-
137 creases toward the south. In the north, the !Kung Bushmen are
184 decidedly forest people, whereas in the Sand Veld they inhabit the shadeless low bush. The surface of the region consists of
134
137 areas of whitish sand, red toward the east and north, which is streaked with strips of surface chalk. Along the Omuramba Omatako and parallel to it there are pseudo-dunes running north-northeast -- south-southwest and covered with dense thorn bushes. On the more clayey soils in the vicinity of the Omurambas [perhaps a local term for "rivers"] there is denser tropical dry forest. A reminder of more humid times is provided by three or four giant baobab trees that are dying.

Ludwig Zukowsky (1) reports on the fauna and flora:

[113]

1. "Beitrag zur Kenntnis der Säugetiere Deutschsüdwestafrikas [Contribution to the Knowledge of the Mammals of German Southwest Africa]," Archiv für Naturgeschichte, Vol. 90, No. 1, Part A, 1924.

132
[136] "The Kung Veldt, a large deciduous broad-leaf forest region, bounded in the north by the Okovanggo, in the east by this river's flood area, in the south by the Dusche and Schadum, and in the west by the lower course of the Omuramba u'Omatako, is regarded by J.H. Wilhelm as a special faunal region, since here the most striking representatives of the Sand Veld, oryx, oribi, bubalis, guevei [blue duiker], and canis are absent and in their place new forms appear, such as damaliscus, schaeffia [?], and hippotragus. Red sand dominates the entire region, which is covered with sereng [Burkea africana], red bean trees [Copaifera coleosperma], mokussi (Baikiaca plurijuga), yellowwood [Terminalia sericea], dolf [Therocarpus erinaceus], and wild orange trees (Strychnos schumanniana). During the rainy season, when the trees are covered with leaves, the deciduous forest that covers the entire region remotely resembles a younger German beech forest. The chief tree is the sereng (Burkea africana) with its accompanying tree, the mokussi

[17 cont.]

137 (*Baikiaca plurijuga*), which have particularly thick trunks along the banks (dunes) of the large Omurambas. Another common tree is the red bean tree (*Copaifera coleosperma*), the yellow-wood (*Terminalia sericea*), sometimes in tree form, but more commonly in bush form as underbrush. In the northern part the *Greesappelboom* (*Parinarium mobola*) appears here and there, and, individually over the entire veld, the rattle tree or the wild orange (*Strychnos schumanniana*) and the dolf (*Therocarpus erinaceus*). The dunes of the Omurambas are covered not only with *mokussi*, but also with camel thorn trees (*Acacia giraffa*), *hackie* bushes (*Acacia detinens*), and another thorn bush (Acacia spec.). Between the large Omurambas, which extend to the flood area (Kaudum and Schadum), and between the Okovanggo and the Kaudum, there is a number of sometimes recognizable, sometimes overgrown Omurambas, such as Tschakaue, Gani, and north and south of the Kaudum, Tschaudum and Kuatschadum. The island-like appearance of *Hyphaena ventricosa* at the watering place Tschaudum is worthy of mention, 500 to 1,000 specimens occurring as isolated trees, as in the Grootfontein plain.
[133] In the entire region there are many *hackie* thorn bush islands and salt pans which have open water or water half a meter deep and are usually overgrown with reeds (Phragmites). The pasture is bad, with the exception of the Omuramba beds, which, like the Kaudum, for example, have a very high water level 20 to 50 centimeters deep. Long, hard grass or low leafy bush [Author: perhaps related to *Dichopetalum venenatum* (Machau), which occurs sporadically] is to be found here, whereas Bushman grass and knawel grass occur only among the thorn bushes. In the underbrush area there are species of Grewia. During the rainy season the ground is [18] covered with prickly cucumbers (*Citrullus nausimonus*), and *onkies* (*Cyperus usitatus*) grow under the *hackie* bushes. In addition, there are a great number of shrubs that bear a tasty bush crop during the rainy season. The baobab tree (*Adansonia digitata*), whose first representatives appear north of Dowigna in the Kaukau Veld, the *morula* tree (*Sclerocaria schweinfurthiana*), the *manquetti* tree (*Ricinodendron rautannei*), and the *hartekohl* tree (*Combretum primigenium*) are absent.
133 Pans of brackish water are absent; in their stead there are ef-
135 florescences of salt at various places in the Kaudum and Schadum.
000

[76 cont.]

278

corresponds to the active ingredient of the poison taken from the arrow. I gave it the name Haemanthin.

"After the subcutaneous injection of animals with the water soluble albumin isolated from Blepharida larvae six to seven milimeters long, disturbances of movement set in fairly rapidly. Food is no longer taken. It makes doves vomit, and, like rabbits, they also get diarrhea. They become quiet, they huddle motionless, and their eyelids, which for a time move almost ceaselessly, finally are affected by the lethargy or inability to move. The eyes are closed. The animals then fall into a sleep-like state and perish, but commonly only after many hours of difficult breathing. Dissection shows changes in the kidney."

[137] A survey of the poisonous plants of South Africa has been supplied by J. M. Watt. In South Africa over five hundred species are used as medicinal plants, and 150 are regarded as dangerous poisonous plants. Most of the poisonous plants known to date have an effect like digitalis. The old arrow-poison plants of the Bushmen, Acokanthera venenata and A. spectabilis, which have been examined in greater detail by Moir, Lewis, and Curson, also belong to this category. It is striking that the poison has an extraordinary chemical and physical stability. For poisoning per os, Boweia volubilis is commonly used by the natives.

[113] Literature: J.M.Watt, M.B., "The Present Position of our Knowledge of South African Medicinal and poisonous Plants,"

137

3: Lebzelter--159 E-5 (1926-1928) 1934 FX10 Bushmen FX10

1. Advance into the Sand Veld.

2. Camp near Shandi in the Otjimpolo Veld.

3. On the high dunes of the Etosha Pan.

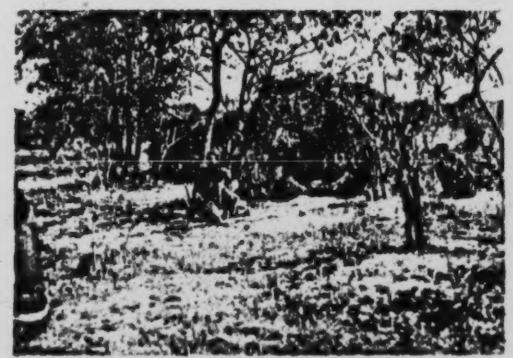
4. Under the Baobab Tree of Uukualuthi.

Plate I. Camping Places of the Expedition in the Southwest.

!Kung

[342]

133
137



1. !Kung Huts in the Bush Veld.

2. Summer Landscape in the !Kung Veld.

3. The Omuramba u Omatako south of Otjituo.

4. Winter Landscape in the Sand Veld.

Plate II. Landscapes on the !Kung Veld.

N/OW

LORNA MARSHALL

821 *N/ow*[1] is a belief concerning rain and cold which is held by the /Kung Bushmen in the region around Nyae Nyae in South West Africa.

132 About ten inches of rain falls in an average year in this part of the Kalahari Desert and sinks into the deep sands. There is no run-off in streams and there are few water holes. The rain is sufficient to support a covering vegetation of grass, shrubs, and 137 scrubby trees. The vegetation includes numerous edible roots, tubers, leaves, fruits, and nuts, for which the Afrikaans language provides the convenient word *veldkos*.

105 The /Kung, the only inhabitants of the interior of this particular region, are 821 nomadic hunters and gatherers. If the rains are poor and the veldkos dry and sparse, the people suffer. Rain, they say, is life-giving; sun is death-giving.

132 Summer is the season of the 'big rains' in the western Kalahari. 'Little rains'—a few scant showers—may fall in September, October, and November. The 'big rains' begin in late December or January and continue into March. The summer storms are awesome. Every day the winds drive monstrous clouds around the sky, which domes a horizon as flat as the sea. They breed the storms. Lightning streaks from them. Thunder roars and rumbles. The earth sucks in their deluges, hissing.

821 The /Kung say that thin clouds which give no rain are male. They call them */now*.[2] The big rain clouds are female. White ones they call *//ga kwe disi*—*//ga* means cloud or rain, *disi* means females.[3] The enormous grey clouds with rain pouring from them the /Kung call */kwesi* (zebras), because they are so fleet and, though a person may think he is far from the rain, it comes swiftly and is on him. We have seen Bushmen, caught without shelter in the storms, shivering so that their teeth chattered, saying they could perish in such rain.

533 Rain itself is male and female, */ga /go* and */ga di*. The men one day drew in the sand the spoor of male and female rain. Male rain spoor was made with all five fingers held stiffly and plunged deeply into the sand, to make big holes. Male rain breaks the trees and beats down the fruits, the men told us. It is (like) a fight, and may kill a person. Thunder and lightning accompany it, and sometimes hail. Female rain has tiny drops and does not spoil anything; it beautifies the trees and the grass and makes the veldkos grow. Its spoor was made by smoothing out a place in the sand and covering it closely with tiny dots. Gao said a person (anyone) may speak to the rain, saying, 'You are doing very well', or, 'Fall silently. Don't make such a noise. Don't be

---

[1] We wish to thank both Dr. Mary Douglas and Professor I. Schapera for reading the manuscript about *n/ow* and for making several helpful suggestions.

194 [2] The /Kung language has four clicks: / is the symbol for the dental click, ≠ for the alveolar, / for the alveolar palatal, and // for the lateral.

192 197 [3] We did not know how to translate *kwe*, which occurs very often. It seemed sometimes to be a sort of article and we did not work on it especially. We regret not having done so because Miss Bleek, in her *Bushman Dictionary* (American Oriental Society, New Haven, Connecticut, 1956), records in the Auen or //K"au-//en language, which she says is very like the /Kung and which she places south of the /Kung, the phrase *!ga -k"wisi*, meaning rain's hair or cloud. In /Kung */ga* and *//ga* both mean rain. We now wonder if *kwe* should be *kwi* and if it means hair in the phrase *//ga kwe disi*.

dangerous.' When they do they use the word *n/oi*. It is a word for gentle rain, and 821
also a respect word. They use it for male rain when they are afraid of it and avoid its
real name, */ga /ga*.

The rains of the western Kalahari are local, falling from clouds which the winds 132
herd. They may fill one pan and miss another. Laurence Marshall spent one whole
night, tentless, in a drenching downpour, to find in the morning that a mile away no
rain had fallen. But by and large the rains are sufficient in quantity and well enough
dispersed to fill most of the water-holes, pans, and hollow trees, and to revive the
growing things, so that the autumn months, which follow the rains, are good—the
best of the year. Then the /Kung may travel anywhere within their territories to hunt
and gather the fresh veldkos. The rains are life-giving.

Winter is the season of dryness. It is also the season of burning sun in the cloudless
sky by day and freezing cold when the sun sets. Bitter winds catch up the sparks of the
fires at night and whirl them in blazing streaks into the darkness. If water is left in
an open bowl, it may be ice in the morning. By mid-winter, July, there has been no
rain for three or four months. The pans and small water-holes are dry. Though there 312
are still foods to be gathered, like the mangetti nuts in the northern forest, there is no
water on the route, nor in the white sand dunes where the mangettis grow, and the
people cannot carry enough in their ostrich-egg shells to go to the mangettis and
return. In 7,500 square miles of the interior of the region around Nyae Nyae, there
are only five water-holes which do not dry up in the winter and spring. The /Kung
bands must gather around whatever permanent water-hole they belong to and restrict [221
their hunting and gathering trips to conform one way or another to the problem of 136]
water. This region, incidentally, does not abound in tsama melons and, though there
are succulent so-called ' water ' roots to be found, they seem not to be sufficient to [137]
support whole bands for long. The Nyae Nyae bands, it appears, cannot, or at least
do not, base themselves for long periods away from their water-holes.

The spring months which follow the dry months of winter are the dangerous 132
months. The sun is scorching. Fruits and leaves shrivel; the edible roots, stirred by
the few tantalizing drops of the little rains, or just because it is spring, give up their
juices to the first new shoots and are dry and bitter to eat. The people longingly
await the rains, saying it is the sun which dries the water-holes and the plant foods. [821]
The /Kung of this region use one word for both sun and dryness, */kam*, and say the
sun is death-giving.

In their beliefs about *n/ow*,[1] which they think influences the weather, as this paper 821
will describe, they make an antithesis between rain and cold. This seems paradoxical
when one experiences the devastating heat of the sun in September, October, and
November, but the resolution of the paradox may lie in the fact that the hardships of
the dry seasons begin with the rainless winter months and their bitterly cold nights,
so that sun, dryness, cold and want become a complex which is in antithesis to rain
and plenty. *N/ow* is called ' bad ' if it brings cold, ' good ' if it brings rain. [171

Mrs. Hoernlé[2] records a Hottentot belief called */nau*. The word appears to be 192]

---

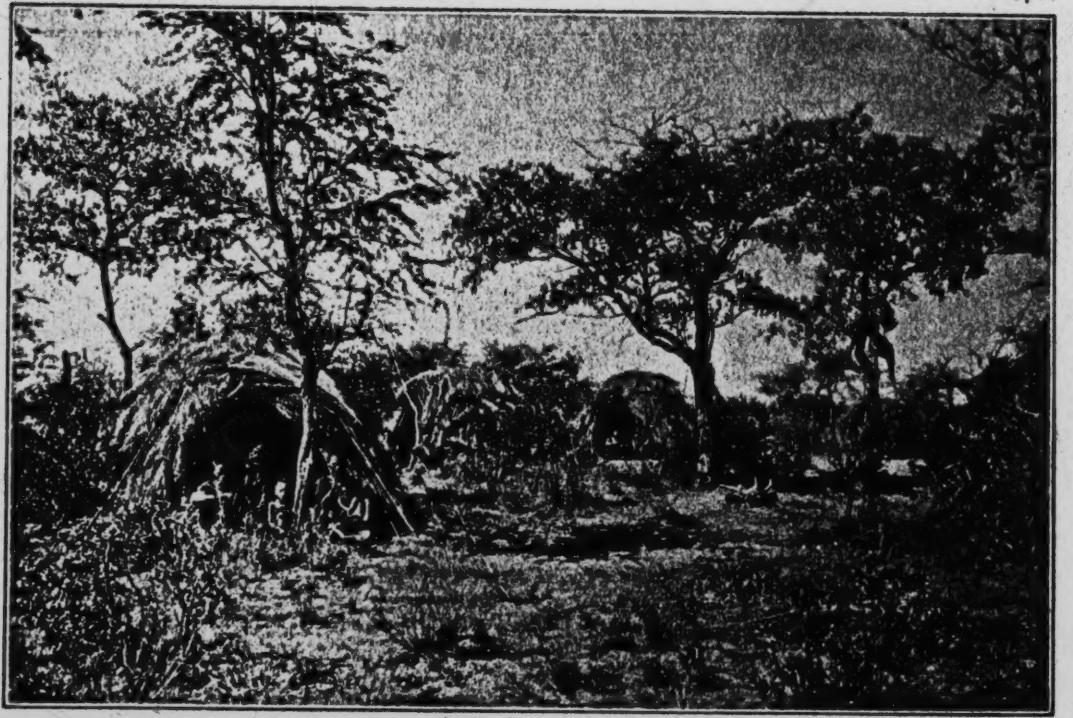
[1] We spell the /Kung word *n/ow* in this way because it rhymes with ' how '. We wish to distinguish it from another /Kung word, */nau*, which it closely resembles, but which has a slightly shorter, more closed sound. */Nau* means ' old man ', according to Miss Bleek's *Bushman Dictionary*. We heard it used as [126]
a term of respect in addressing old men.

[2] Hoernlé, Agnes W., ' Certain Rites of Transition and the Conception of */nau* among the Hottentots ', *Harvard African Studies*, ii (1918), pp. 75-77.

/Because this entire source is essentially a botanical report on the flora of the Bushmen region, data on flora will be found in category 116, pp. 4-8, 10-113/

8: Fourie D-5 (ca. 1920) 1928
FX10 Bushmen FX10

342
137



≠Ao //ēin Werf.

[p.88 B]

524 thing. This they do one by one, each in turn beckoning to the others to come and see.

In the *surus-/hurub* (game of the ringhals snake) one woman acts as the snake, standing with her hand and forearm raised above the forehead. As the other women approach her she hisses and strikes with the raised hand after the manner of a snake, causing them to scream and retire. This game is said to be founded on the experience of a woman into whose eyes a snake spat while she was trying to drive mice out of a shrub by means of her stick.

The following are a few examples of the games played by the *‡Ao-//ein* and *//Aikwe* of the Kalahari, viz.: *Children's*:
[851 A man bartering goods from a trader; cock ostriches fighting with elephants which have come to drink at waterhole; a fight between two opposing groups, small bows and wooden arrows being used; a python lying in wait for and capturing its prey at a waterhole. *Men's*, the ostrich game; throwing the *isani*, in which a thin, short-feathered stick, weighted at one end by means of a large bean (bauhinea esculenta), is flung into the air and kept going by catching it on a stick in its descent and flinging it up again; throwing the stick, in which each player has a thin stick, about three feet long, which he flings forcibly on to the ground in such manner as to make it rise into the air and shoot away from him. *Women's*, catching the ball in which a melon or round tuber is used for the purpose; the capture of brides by young men, etc.

ECONOMIC CONDITIONS.

Food Supply, Etc.

137 The source of the food supply varies very considerably in
184 different localities. In some it is derived mainly from the
268 vegetable, in others from the animal, kingdom. The Kalahari and northern parts of the territory are rich in both plant and animal life and the Bushmen inhabiting those parts consequently have a fairly well-balanced dietary. In the central and southern Kalahari the most important among the vegetable foods are the *tsamma* (citrullus vulgaris), öintjes (cyperis edulis Dtr.) and *//nõun* (Bauhinea esculenta). As one proceeds northwards various fruit-bearing trees appear, *e.g.*, the wild fig, palm, omungete nut, wild orange, omuandi, omuve, etc. In addition to the above numerous varieties of edible roots, bulbs, tubers, berries, etc., appear in great profusion during and after the rainy season.

222 Among the *Hei-//om* the following ceremony is observed in connection with the collection of veldkos by the women. It is practised when the fruit of the *‡huin* ripens, generally after the onset of the big rainy season in the month of February. On a certain day, appointed by the *gei-khoib*, all the women, under the guidance of the *gei-khois*, set out to collect the first fruit of the *‡huin*, the men in the meantime remaining in the *//gãus*. The trees from which the fruit is to be gathered

CHAPTER ONE

The Desert

There is a vast sweep of dry bush desert lying in South- 131
West Africa and western Bechuanaland, bordered in the 133
north by Lake Ngami and the Okovango River, in the south 137
by the Orange River, and in the west by the Damera Hills.
It is the Kalahari Desert, part of a great inland table of southern Africa that slopes west toward the sea, all low sand dunes and great plains, flat, dry, and rolling one upon the other for thousands of miles, a hostile country of thirst and heat and thorns where the grass is harsh and often barbed and the stones hide scorpions.

From March to December, in the long drought of the year, 132
the sun bakes the desert to powdery dry leaves and dust. 137
There are no surface waters at all, no clouds for coolness, no tall trees for shade, but only low bushes and grass tufts; and among the grass tufts grow brown thistles, briers, the dry stalks of spiny weeds, all tangled into knots during the rains, now dry, tumbled, and dead.

The Kalahari would be very barren, very devoid of land- 137
marks, if it were not for the baobab trees, and even these grow far from each other, some areas having none. But where there

137 is one it is the biggest thing in all the landscape, dominating all the veld, more impressive than any mountain. It can be as much as two hundred feet high and thirty feet in diameter. It has great, thick branches that sprout haphazardly from the sides of the trunk and reach like stretching arms into the sky. The bark is thin and smooth and rather pink, and sags in folds toward the base of the tree like the skin on an elephant's leg, which is why a baobab is sometimes called an elephant tree. Its trunk is soft and pulpy, like a carrot instead of wooden, and if you lean against it you find that it is warm from the sun and you expect to hear a great heart beating inside. In the spring, encouraged by moisture, these giants put out huge white flowers resembling gardenias, white as moons and fragrant, that face down toward the earth; during the
262 summer they bear alum-like dry fruits, shaped like pears, which can be eaten. In the Kalahari there is no need of hills. The great baobabs standing in the plains, the wind, and the seasons are enough.

132 Usually in the hot months only small winds blow, leaving a whisper of dry leaves and a ripple of grass as though a snake has gone by, but occasionally there is a windy day when all the low trees of the veld are in motion, swinging and dipping, and the grass blows forward and back. When there is no wind, heat accumulates in the air and rises in thick, shuddering waves that distort everything you see, the temperature rises to 120° Fahrenheit and more, and the air feels heavy, pressing against you, hard to breathe.

June and July are the months of winter. Then water left standing freezes at night, and with the first light of morning all the trees and grass leaves are brittle with frost. The days warm slowly to perhaps 80° at noon, but by night when the sun sets yellow and far, far away over the flat veld the cold creeps back, freezing the moisture from the dark air so that

the black sky blazes with stars. In winter the icy wind, pouring 132
steadily across the continent from the Antarctic, blows all night long.

There are only three months of rain in the whole year, and 132
these begin in December, ending the hottest season when the 137
air is as tight and dry as a drum skin. Under the rain—which is sometimes torrential, drenching the earth, making rivers down the sides of trees, sometimes an easy land rain that blows into the long grass like a mist—the heat and drought melt away and the grass turns green at the roots. Soon the trees flower, and in the low places the dry dust becomes sucking mud. Towering clouds, miles away, widen the horizon, and all the bushes which stretch in an unchanging expanse over dune after dune now blossom and bear white or red or violet flowers. But the season is short, and the plants bud, flower, and fruit very quickly; in March the drought creeps in, just as the veld fruits ripen and scatter their seeds.

When the rains stop, the open water is the first to dry, 132
making slippery mud and then caked white earth. By June only little soaks of waterholes remain, hidden deep in the earth, covered with long grass. These, which are miles apart, dry up by August, and then travel in the veld is nearly impossible. Because of this, large areas of the Kalahari remain unexplored.

We have crossed this desert three times, my family and I, 114
on three expeditions, which usually numbered between ten and fourteen people and included my father, my mother, my brother, and myself, as well as several other Europeans who were linguists, zoologists, botanists, or archaeologists, sent by universities of the Union of South Africa, England, or the United States, as well as four or five Bantu men—several interpreters, a cook, and a mechanic—who were the staff. We usually traveled in four big trucks and a jeep, and had to carry

GiKwe

114 language), and Kung; Simon, a mechanic's helper; William Camm, also an interpreter who spoke Afrikaans, some English, and Gikwe; and Gishe and Ɖabe, two Gikwe Bushmen who lived on Theunis's farm.

We were looking for Gikwe Bushmen, as we had heard that there were some who lived in the area. We hoped that if we found some, Gishe or Dabe might discover a relative and enable us to make friends.

133 We traveled for many days, all day long, for, not knowing
137 where the Bushmen were, we hoped to come across some of them somewhere, or find a trace or track that might show us in what direction they had gone. We did not find anyone, though, and we saw nothing but the series of long, broad plains that dipped and tilted ever so little; we would find ourselves down in a wide, shallow bowl of grass, then at the rim of the bowl, where we would see the next plain rolling for miles away. Occasionally we came to an acacia forest, but mostly the country was open grassland with tiny thorn bushes down in the grass to catch us. Because it was June, the beginning of the dry season, there were many veld fires, and although we never came upon any, every day we saw their smoke, gray and misty on the horizon, all around us in a ring.
136 Sometimes we saw a small herd of game running far away from us, raising a little cloud of dust. We saw gemsbok, handsome, large, beige antelope, striped black on their sides, white-bellied, with long, straight horns. We saw gray, tousled wildebeest with curved horns like the horns of cattle. Once we surprised a herd of three eland, a bull and his two wives, which had been eating behind a clump of bushes. They threw up their heads when they saw us, eyes catching the sun and shining pale green like fires. They wheeled, hoofs scraping, and ran, their red bodies swaying, their heads held high

is a painful procedure. The cuts are made on the thighs and 304
forehead with a knife or ax blade, then charcoal is rubbed in, but the woman told us later that in her case it had been worth the pain and trouble because, she said, she was extremely ugly and had been made more beautiful.

Her baby's name was Nhwakwe, she told me, and after 551
that we were at a loss for conversation. I offered her a cigarette, 276 [609]
which she declined, indicating that it made her cough. I was surprised, for she was the only Bushman I had ever met, man, woman, or child, who did not smoke.

Presently she smiled, pressed her hand to her chest, and 551
said: "Tsetchwe." It was her name. 609

"Elizabeth," I said, pointing to myself.

"Nisabe," she answered, pronouncing after me and inclining her head graciously. She looked me over carefully without really staring, which to Bushmen is rude. Then, having surely suspected that I was a woman, she put her hand on my breast gravely, and, finding that I was, she gravely touched her own breast. Many Bushmen do this; to them all Europeans look the same.

"*Tsau si*" (women), she said.

Then after a moment's pause, Tsetchwe began to teach me 609
a few words, the names of a few objects around us, grass, 222
rock, bean shell, so that we could have a conversation later. As she talked she took a handful of the beans out of her kaross, broke them open, and began to eat them. This is a [137]
wonderful, bitter bean, shaped like a lima bean, which grows
on tiny bushes in patches throughout the Kalahari. When you [261]
eat these beans they burn your tongue, throat, and stomach, but they take away hunger and thirst. Besides the beans in her kaross, Tsetchwe, who began unloading, brought out a large, edible root which she had dug up—she must have been gathering food before we came—and put it in the shade of a

574
[481] walk in single file, and they seemed very small, naked, and far away under the burned, pure sky, moving toward some remote destination where they hoped to find a man who had been walking away from them for almost a month, perhaps at some nameless little pan lost somewhere in the countryside, perhaps in a nameless bend of the omaramba. As they walked they zigzagged, avoiding small obstacles such as stones or thorn bushes, very incongruous with the enormity of the sky and the plains. The bow on Gai's shoulder made a bold upward curve.

A tree appeared on the horizon, and they veered toward it. When they reached it they sat in its shade, two shadows in the yellow grass, and a puff of smoke rose as they lit their pipes. We caught up to them and found Gai digging for a
[222] *torabe* vegetable. He reached into the hole he had made and dragged it from its roots, brushed the dirt away, and chopped it into six pieces, giving one to each of us. We ate that for lunch. It was bitter and moist, firm as an apple and pleasant because it was wet. As we sat there we noticed the smoke of three veld fires which had suddenly risen, perhaps stirred by the wind far away, two small ones in the north and east, one large one in the south, its smoke reaching up to the sky first in little tendrils, then billowing in great clouds like the clouds in the sky but browner.

Gai and Witabe stood up, brushing sand from their legs, and walked into the sunlight again, turning toward the larger fire. Bushmen often set the veld alight to signal to each other,
[201] but they do not send messages; a fire simply shows other people where they are, and even this is vague, as fires are sometimes set by natural causes.

137 After traveling several hours over the plains, we came to a little forest in a valley. A fire had been through there and had burned all the yellow grass from the ground, leaving black

ashes and little black, charred thorn bushes, but the flames 137 had not touched the leaves on the trees. These remained yellow-green, orange, and silver, tangled and confused above the black, breaking away from the branches when the wind blew and falling like autumn leaves in New England. The whole valley would have been very like New England except that there were leopards in the forest; as we looked around we found a leopard's tracks. We rested in the shade on the side 224 of the valley, and as we sat quietly we heard the sound of hoofs in the valley below, and we saw through the bushes the dark backs of a herd of wildebeest, walking along in single file, first the cows, then the larger bulls, their curved cow horns making them look for all the world like a herd of small, dark cattle.

Gai was on his feet in an instant, his bow in his hand, and, like a leopard springing, he jumped past us and ran, silent and half crouching, through the bushes beside them, but he had no arrow, and when he got near enough to shoot he had to stand up and shoot a grass blade after them, partly for practice, as a Bushman hunter will never miss a chance to practice his aim, but partly because Gai was still too young to be able to resist making them run. They threw up their heads, snorting like horses, and galloped away, leaving behind them a great cloud of dust. Gai ran after, his heels [481] pounding, and was gone in a few great perfect strides, as if a hawk had left us with a few stiff beats of its wings.

Witabe, too, was completely absorbed. Although he did not run after the wildebeests, he got to his feet and gazed after them, unconsciously making a gesture with his hand representing the head and horns of a wildebeest. He moved his hand in time with their running, saying softly: "Huh, huh, boo. Huh, huh, boo," the sound of their breath and grunting as they ran.

CHAPTER SIX

Veld Food

132 271 137 WITH the warm air came a series of long, fat clouds sailing from the north like slow dirigibles, some of them showering down a few drops of rain. We were amazed to see rain in winter, the dry season, something we had not seen before, and we asked Ukwane about it. He said that it was not unusual for rain to come in the wintertime but very hard on the people of the desert, as it fools the wild vegetables from which the Bushmen get their water.

There are many kinds of wild roots which can be eaten in winter, and each is marked among the grass blades by an almost invisible dry thread of a vine. The roots are swollen with liquid by which the plants preserve their life during the drought. When the plants feel the onset of spring, warm air and raindrops, the dry vines suck moisture out of the watery roots, turn green, and put out tiny leaves, and in this way, if the false spring lasts, the roots are soon sucked dry entirely. Bushmen cannot get enough water from eating the vines and leaves. The plants do not bear fruit until summer; the spring-season vegetables, such as little onions, pods like pea pods,

and leafy green vegetables that taste like rhubarb, have not 132 271
grown in yet; and so the Bushmen must go thirsty. People 137
have died of thirst in these false seasons.

Gathering veld food is the work of the Bushman women, 222
and I used to go with them quite often on their trips. We [462]
sometimes stayed in the veld all day eating roots instead of drinking water. One day my brother came along to film the gathering of veld food, and as we were getting ready to leave, Gai also joined us. It is customary for Bushmen never to let a
group of their women go anywhere with a Bantu or a European [609]
man unless a Bushman man goes with them to protect them. Gai sauntered along behind us in his role of guardian, quite unhampered, as he had nothing with him but his loincloth. Dasina, Twikwe, and Tsetchwe walked in front, each with a digging-stick thrust in her belt like an enormous knife, each wearing a heavy cape, and Tsetchwe carrying her baby, who rode, carefree and swinging his feet, on her shoulder. John and I walked in the middle of the procession, and at the end came the three young boys, who did not stay in single file but ran all over the veld, ran circles around us, and shouted to each other happily.

We walked across the pan of Ai a ha'o through the fine, [137]
soft grass, which left tiny, barbed seeds sticking to our legs. We walked through the brush on the opposite side and then over a wide plain, where we saw a herd of wildebeest. No one was armed, and when the wildebeest saw us, put down their heads, and ran, we could only watch helplessly as all that meat galloped away.

We walked until we came to a patch of tsama melons, perhaps twenty of them lying together, shiny, smooth, and green in the grass. The vine that once had nourished them had dried away and already some of the melons were turning yellow, overripe, ready to open and release their seeds.

222 roots or cucumbers, returning to their werf before it is utterly dark, for in the hot season the big snakes, too, move only at night, the mambas and the cobras out of their holes.

By the end of the season the Gikwe are emaciated from hunger and thirst, and it is because of this season that the Gikwe hear the jackals on the plains cry "Water, water."

222 When we reached the little hill Twikwe had mentioned
137 we found no bi root, but we found other kinds of veld food: a bush with red berries, several kinds of roots, and a spiny cucumber not three inches long, round and bristling with its spines like a sea urchin, handsome in its light-brown, yellow-striped skin. The young boys found five of these cucumbers lying in a crooked row on the sand, all put there by a vine which had mostly dried and shriveled away. We picked them and ate them. They have a watery green flesh which looks just like the flesh of a cucumber as we know it but which is sweet.

Witabe, noting the direction of the vine by the way it had deposited its cucumbers, traced it to its source and found a bit of it left above the ground, below the branches of a white-thorn bush. He said there would be an edible root there, and when he dug, there was.

Meanwhile, Gai had found a solid, stiff vine like a stalk among the roots of a gray bush which was the home of a small flock of birds. Just for fun, Gai chased the birds out; they would have gone anyway, but, frightened by him, they flew like little pellets in every direction, leaving behind a pale, soft grass nest blowing in the wind. Gai sat down facing the bush with the branch shadows all over him and dug with a digging-stick in the sand between his legs. The branches around his head got in his way, tickling his ears, causing him to slash impatiently at them with his digging-stick, and when

this did no good he endured the nuisance for a moment, then 222
flung himself down on his back, put up his long legs like a 137
fighting cock, and kicked the branches down.

He dug out a great deal of earth, throwing it behind him, and finally uncovered a *ga* root, big and dark with a warty surface all covered with lumps like a toad or a stone; a fascinating thing, for although it was large and nondescript, brownish gray in brown-gray sand, marked only by an old dry vine, it was life itself to Bushmen, bitter but quite moist even in the hottest season. Tsetchwe put the root in her kaross and we went off, Gai generously carrying the baby, taking him from
Tsetchwe by the forearm and swinging him up to his shoulder. [854]
The baby rode astride Gai's neck with the soft kaross he wore draped over Gai's head. From the rear they were an apparition, as this made the baby's head, not much higher than Gai's, look like a tiny head on a man's tall, slender body.

We wanted very much to find a bi root, and while Gai, the baby, and my brother went off to look for one I waited behind with the women. We rested in a small circle in the dim shade of the grass, which, when we were sitting, came high above our heads so that all we could see was a circle of sky and, in the circle, the ragged, waxing moon. It had risen
luxuriously in the daytime and was a pale, large crescent, [821]
pearl-colored in the sun. The moon is a root with a climbing
stalk, a vine. It can be eaten.

Giamakwe began to urinate right in our midst, crouching 514
and pulling his loincloth aside. Although the adults are slightly inhibited about this, the children are not, sometimes simply turning aside to urinate as one might turn aside to cough. Presently the young boys got up and ran away, and when they did Tsetchwe herself got to her feet, stepped aside, and urinated also, standing up but leaning forward. Bushman

GiKwe

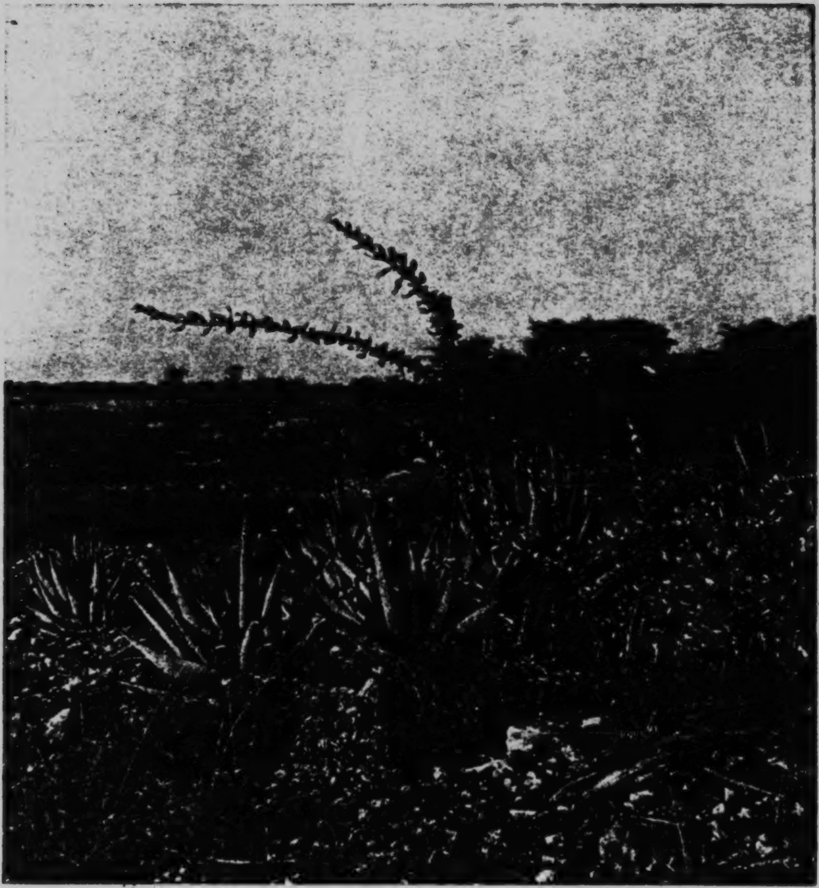
222 or so below hard-surfaced ground and have no leaf nor stalk nor vine to show where they are, only the tiny crack made by the truffle swelling, which the Bushmen notice.

137 222 We had crossed a barren stretch of plain where only grass was growing and were in another patch of low bushes where veld food also grew. The great plains of the Kalahari may seem undiversified, but really they are divided into countless little patches, some barren, some fertile, depending probably on the soil. In this veld-food patch Twikwe found another vine tangled in the lower branches of a thorn bush and she crawled in after it and began to dig. The thorns around her head, all smooth and shining white like jewels, were tickling her, but, unlike Gai, she delicately put up just one hand and picked off the very thorns that pricked her.

222 She resumed her digging and after perhaps twenty minutes as she followed down the vine she uncovered another ga root also wedged among stones. This ga was not as large as the other one, nor was it wedged as tightly, and when she grasped it, arched her back, and tugged, clenching her teeth and straining her thin arms, the rocks suddenly gave way and the ga flew loose, sending Twikwe crashing back among the thorns. She wiped the perspiration from her forehead with her thumb before she crawled out of the bush, dragging her root and her digging-stick. I noticed that the root was very wrinkled, as if it had shrunk. Twikwe struck at it with the point of her digging-stick, chipping out a fragment, which she put in her mouth. Then she spat, stood up, and walked away from it. When I, too, tasted it to see what was the matter I found that it was flaccid, dry, and very bitter, quite inedible. I looked inside the bush and saw that its vine had begun to turn a little green.

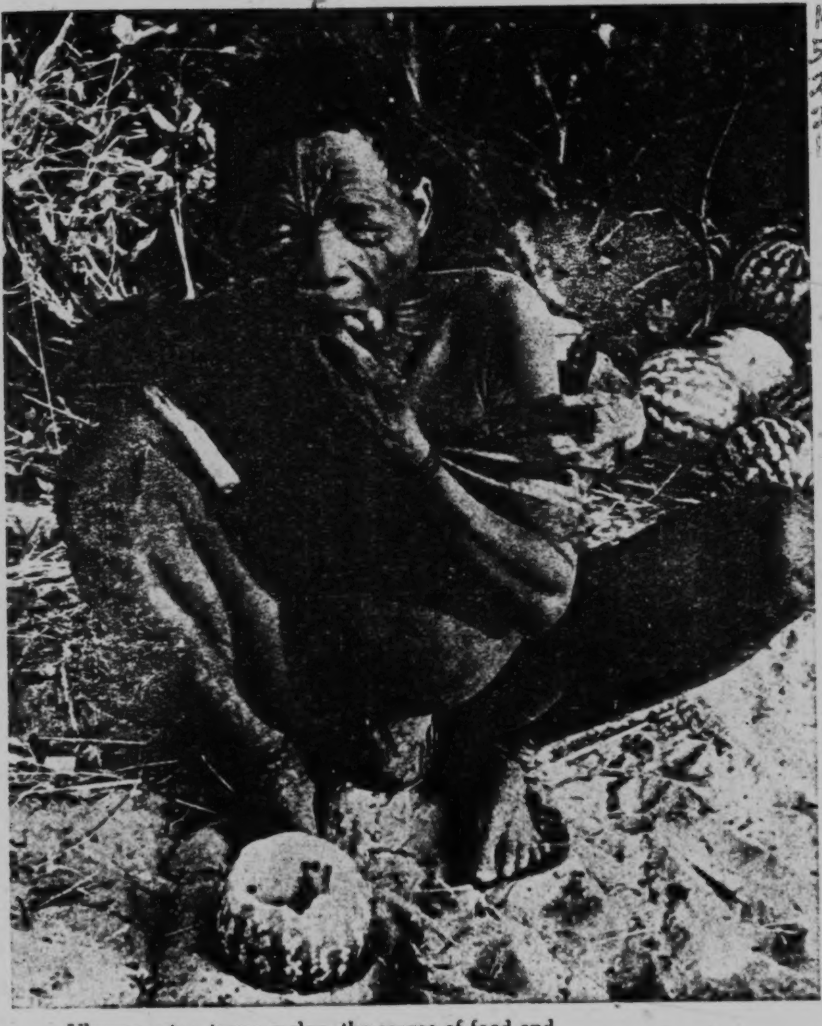
We went on, and passed a few dry melons on our way, yellow and empty, perhaps bitten by an antelope some time

● 137



The aloes and the spiny plants of the desert. Far away, on the horizon, two baobab trees are showing.

[p. 112(A)]



142
516
262
222
137

Ukwane eats a tsama melon, the source of food and all water for Bushmen during the drought.

[p. 112(c)]

137
621
342

[p. 112(H)]

The people from Okwa camped right beside Ukwane; the two werfs were shaded by the same little tree.

CHAPTER NINE

Peoples of the Veld and Sky

133 AFTER many days, during which we crossed the rest of the great central desert of Bechuanaland, we came to a strip of fertile country which is in both Bechuanaland and South-West Africa and is owned to a large extent by the Chuana people, who have great cattle ranches, vast areas of grazing-land, and rather small villages. In this fertile land is Lake Ngami, a flat marsh or even a dry pan at most seasons, but when we sat it, it was filled with water, something that had not happened since Livingstone was there.

The country had changed greatly since we left the central desert. In the fertile land there were forests, thorn thickets, even little hills. At some places there were vast grasslands with grass higher than the hoods of our trucks, but in other places livestock had eaten away everything, cattle having devoured the grass, goats having chewed the leaves from the bushes. We saw five or six great herds of cattle grazing on the flat land surrounding Lake Ngami, where the grass was short
133
137 and green and looked kept, like a park. There were perhaps a thousand cattle in each herd, and mixed with the cattle were herds of springbok, a few ostriches, and marabou storks. It

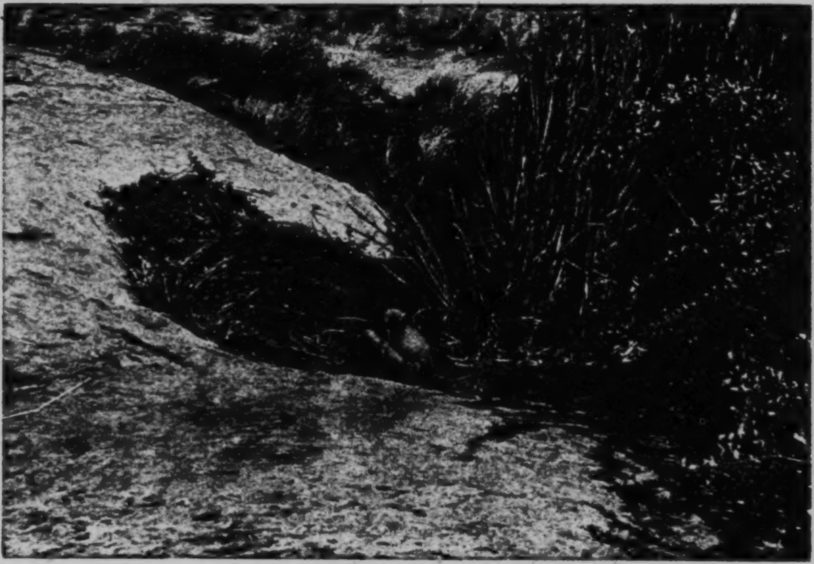
was pastoral Africa, for the path we followed was marked 133 with the hoofs and dung of the cattle, tracked by the huge 137 ox-drawn, forked log sledges of the Chuana farmers, and now and then patterned with the footprints of a jackal, a hyena, or even a leopard or a lion, for although there are great herds the country itself is wild.

Lake Ngami was an enormous, shining expanse of water 133 a few square miles in area and very shallow everywhere. We got out of our trucks and went to the water to rest our eyes with so much luxury and we found that the water was warm, full of brow duckweed, and swarmed with innumerable tiny flies. Ducks and geese were swimming, storks and flamingos were wading at the edges, and while we were looking the largest herd of cattle that we had ever seen came to the lake to drink. There were hundreds upon hundreds of them drifting toward the lake, and the noise of their hoofs was like the sound of a tornado, a great waterfall, thunderous and mighty. A Chuana was riding among them and it took him nearly an hour, traveling in a straight line, to pass through the herd, the cattle parting a little as he came to let him by. He rode on and on, and when we left he was still riding, still among the cattle, and still not out of sight.

We left Lake Ngami and its vast pastoral lands and went on until we were away from the Bantu farmlands, over the border of Bechuanaland into the Kalahari Desert of South-West Africa, which at that place is called the Nyae Nyae area. This country we knew very well, for it was here that we had lived a year among Kung Bushmen, and although it was a desert it was also totally unlike the great barren steppes of central Bechuanaland, as it was quite rolling, marked by large forests of small trees, by little rolling hills, by omarambas, and by pans, which in the rains were shallow lakes and in the drought were clay flats. The land was still very

9: Thomas T-5 (1951-1955)1959
FX10 Bushmen FX10

133
137



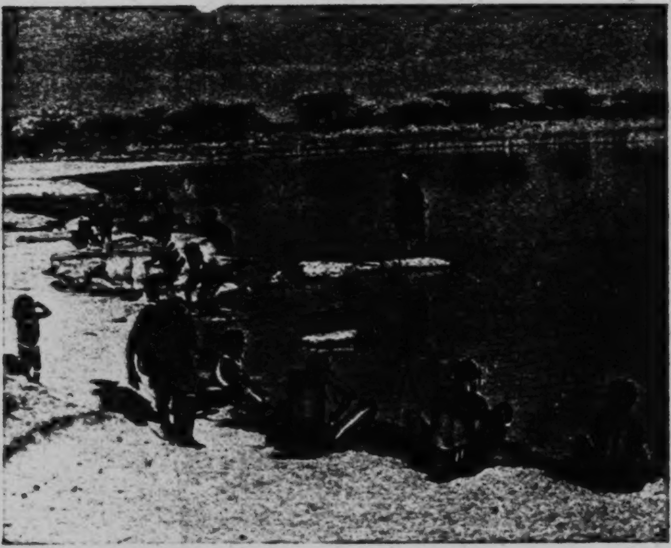
Long reeds almost filled the waterhole at Gautscha.

516
142
291
534

Alone at his fire, Ukwane plays a mood song.

[p. 176(A)]

133
516



The shining lake of Nama.

In the middle of the circle the great tree rose, pink-skinned and mighty, the claimer of two lives.

137

[p. 176 (H)]

CHAPTER ELEVEN

Toma the Leader

374 It was very cold and the wind blew all night long, sweeping the haze from the sky and leaving the brilliant hard white moon. In the bitter hour before morning we were all too cold to sleep, so we got up, finding that the Bushmen had risen before us and were crouched shivering on the ground between the small fires, partly sheltered by the grass.

133 When the sun rose the air got a little warmer and shortly
137 after dawn we moved away from the camping-place, on toward Nama. We went through little forests, over slanting plains bordered with trees, past an outcrop of rock where I once had seen a leopard lying on his side, sunning his white belly, past a graceful tree which was one of the trees where the people of Nyae Nyae got their poison. At noon we reached Nama Pan.

Nama was a grassy field in the center of a scrub forest, and in the field was a great rock slide, basin-shaped, which now was filled with crystal water, and around the water was a beach of sand six inches wide. Around this beach the green grass grew, very dark, almost rotten with the water, the rich earth, and the sunlight.

• • •

the bottom too, "with his head driven down between his 481 222
shoulders," said Toma laconically, hunching his own neck to 165
show how it was.

A third man whom Toma did not name climbed for honey in the Gura baobab, a tree somewhat north of Gautscha Pan, and he also fell; but, happily, he survived his experience. His sister and her husband were below him, watching, and when they saw him fall they held out their arms to catch him. He fell through their arms, of course, but his fall was broken and though he was unconscious for a long time he finally did recover.

The moral of these stories, Toma said, was to show that 867
young people should listen to older people and not act rashly. I believe that he thought I was going to try to climb the Gautscha baobab (which I had already done, though only to the lowest branch, fifteen feet from the ground), for he went on to say: "When Bushmen tell young people not to climb baobab trees they should listen. It is seldom that a person lives who falls from a baobab tree, they are so high. Even those good climbers I told you about, they all fell." I assured him that I did not even want to climb it and he said: "Good. When we who are experienced get the honey you can watch from below. Then you can see just as well."

The Gautscha baobab was somewhat east of the pan, and 137
we could see it rising from the plain when we were almost a mile away from it. It loomed up at the horizon, towering, its mass of upper branches hazy because we were so far. As we moved toward it, it seemed to move away from us like a distant mountain, but gradually, after a long time, it began slowly to get larger, looming higher, its top branches reaching up to the sky, where the clouds of spring were already forming as the desert got ready for the rains, three months [132]
away.

9: Thomas T-5 (1951-1955)1959

FX10 Bushmen FX10

Kung

137 It was noon when we reached the tree; we broke through the bushes that surrounded it and came into its clearing, a circle thirty yards across of stony, barren ground from which the long roots had sucked the nourishment, and in the middle of the circle the great tree rose, pink-skinned and mighty, the claimer of two lives, twenty feet in diameter and almost two hundred feet high. Its lower branches were heavy and enormous, but the branches got smaller toward the top, the upper ones very thin, crisscrossing each other like lace. On the eastern face of the tree there were no branches; the pink
137
481 trunk towered up and up, smooth and bare. On this side was an ascending row of pegs driven in by Bushmen long ago who had been after honey, used in later years by Bushmen hunters trying to rob the hives again or to scan the countryside for game. The pegs led from the ground around the trunk to the lowest branch, then up the trunk again to the next branch, ending finally at the top of the great tree, almost out of sight.

I knew this old tree very well, for during the year that we had lived at Gautscha we had camped beside it. It had been the home of many creatures then; and now the eastern face of the tree, the great bare slab rising like pink stone, was pocked with little holes. Some of them were empty, surely, but some had tufts of dry grass showing in the openings, little creatures' nests, and here and there, between the roots or in the forks of branches, were the caves of larger animals.

224 Bees had lived in a hole among the branches halfway up,
136 though Toma said the bees had now moved higher; a mongoose had lived in a little cave between the roots on the south side, though now the mongoose was dead, snared and killed by Toma's son; a python that had lived in a hole on the north side was also dead, killed and eaten by an old Bushman woman we had known; but a colony of green-furred squirrels that had lived on the lowest branches, we saw, were

Kung

000 pointed to me and said: "Look at Dikai. She wants to go home. Let's go home." And so we did, and as evening came we went by Gautscha Pan.

133 We had not seen it before; we had been in the bushes on
136 its eastern side when we had looked for honey, but now, as
137 we emerged from the bushes, we found ourselves on its farther, eastern rim.

Great Gautscha Pan was full of water, shining gray water. Smoke overcast the evening sky all around the horizon and high into the air, and all we could see was the great stretch of gray water with yellow grass like islands in it and flocks of small black ducks breaking its surface, and yellow grass all around. The line of bush on the horizon was gray-green near us where we stood on the rock slide at the eastern rim, touched with yellow spots, acacia trees with their soft, pale-yellow fuzzy flowers round as balls, looking like clouds, like dreams, pretty and fresh with a sweet fragrance, and as the bush went around the pan the haze dimmed it, giving it the subtlest colors and a wild, still look like trees before a storm. Among the bushes to the north of us rose the two visible baobab tops, eerie and far away, and in the water the yellow grass was reflected upside down.

There it was, Toma's great country, magnificent and solitary, for no one lived there now, no person, no animal, except the black wild ducks that swam on the water, some near, some far away, in lines of three or four, in pairs, moving gradually in their even, deliberate processions as though they were being drawn slowly over the water by hidden streams.

The sun was sinking; high above the horizon it was deep red, a perfect circle, almost hidden by the haze and reflected by a red path in the water, and as it sank into haze that grew thicker and thicker the sun got paler and more obscured until it vanished long before it set.

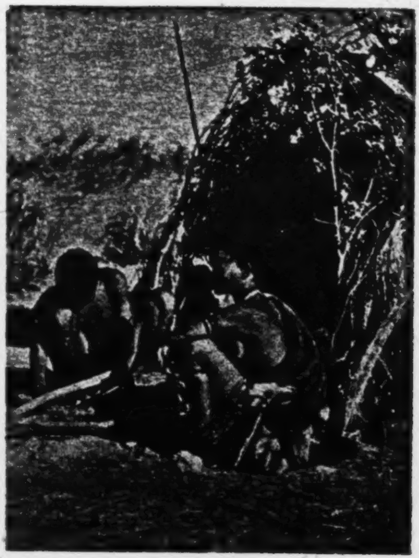
133 face its exigencies, for this sand-filled depression is distantly rimmed by mountains, and the mountains catch most of the clouds that might otherwise bring rain. The rain that does fall is sucked into the sand, so that there is little surface water and much of the Kalahari Basin is true desert.

137 ALTHOUGH true desert, the Kalahari is not a bare place: the face of the sand is hidden. Much of the desert is clothed with stalwart, similar bushes, most of them thorned. In places, dry forests grow slowly: the trees stand apart and the air between them is strangely still on days of wind. Grass covers the sand: in sweeps on the dry plains, in glens in the bush; grass grows on dunes gathered long ago by patient wind, and in the silent valleys, called *omuramba*'s. In a younger, greener time that has come and gone since man first lived in southern

● 137 Africa, these valleys once flowed—draining water from the high edges into the Basin. Now the sand has wandered into these valleys also.

132 There are four seasons in the Kalahari, two are brief. Winter begins in May and lasts through September. It is a healthful season. Of the foods available to gatherers in winter, roots are the most abundant. The earth is dry: the days are warm and clear, but cold in the shade; the nights are chill. Temperatures sink to 20° F. and below when the night wind turns, blowing from the antarctic south. On some hazeless nights, when the empty air seems insufficient protection from the cold of space, the morning ground will be wet with heavy dew. However, the smoke from a thousand African veld fires often thickens the skies of noon, reddens the setting sun and keeps the nights warmer and the earth dry.

At the end of September, clouds be-



FOR RAINY SEASON, the open-fronted grass shelters are more substantial.

[342]

[p. 8]

137
222

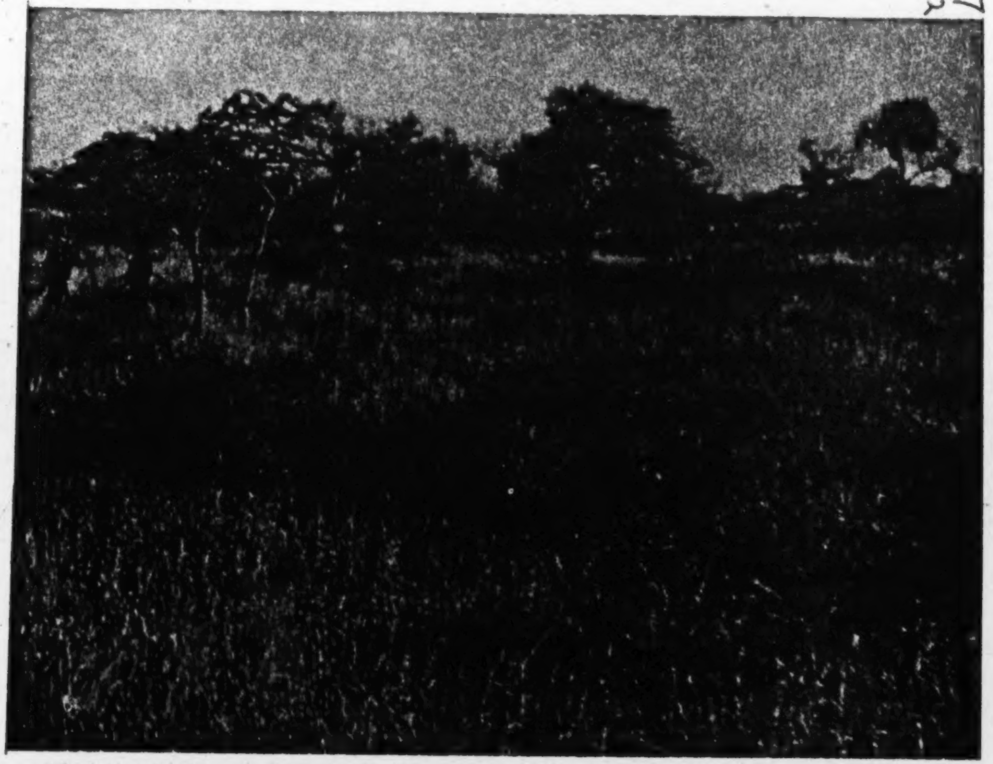
Collection of food, in contrast to hunting, is women's work among the !Kung. Almost every day, they leave camp to gather *veldkos* (roots, berries, nuts and the smallest animals) in the wild bush. The basic tool is the digging

[p.9]

11: Marshall E-5 (1950-1955) 1958 FX10 Bushmen FX10 Kung

137
222

[P. 10]



stick, fashioned by the man of the family from a tree-branch. Children soon learn, by watching, to identify more than a hundred edible wild plants. *Above*, four women, one with a young child, set off across the veld for food.

132 LATE in December or early in January the rains of summer—the "big rains"—begin. This is the season of water. Water collects in the hollows of the land; it seeps into the pans, changing them into shallow lakes; it melts the baked clay in the *omuramba* bottoms, and turns the Kalahari green.

132 This is the season when two nuts,
the *tsi* and the *mangetti*—the most im-
262 portant and abundant of the wild
desert foods—begin to mature. By
●137 March, the *mangetti* forests sound with
the falling nuts. Beside the summer
storms—when water piles up uselessly
on the reverberating earth—days on
end are cloudy and, sometimes, a fine
mist falls over parts of the north-
ern Kalahari through the day and into
the night. Now, the people eat many
fruits. In the deeps of green thickets,
ponderous flowers droop on slender
[164] vines. Spring and summer, the times of
bounty, are also the seasons of disease.

By the end of April, the afternoon
132 skies begin to clear, the air dries, the
wind seeks. It is autumn. In April,
the *tsi* nuts ripen and the pods split,
turning out their brown wealth. The
many desert roots cease their activity
and become firm and full, safe in

174 last, white and black met,—raiding one
another for cattle across the Fish
River—and the time of the Zulu and
the Voortrekker was near, the classic
period of the Bushmen was over.

131 THE AREA called *Nyae Nyae* lies on
the border between South West
Africa and Bechuanaland. It covers
about 10,000 square miles, between
18°55′ and 21°0′ South latitude and
19°50′ to 21°25′ East longitude. In
133 the center of this area is a ring of *kalk*
pans. *Nyae Nyae* is actually the name
the !Kung gave to this ring of pans,
although I have applied it to the whole
area occupied by the !Kung nation.
136 There is game round these pans
and, in small groups, everywhere in
Nyae Nyae. Wild roots grow in the
● 137 bush that shrouds much of the territory.
There is *tsi* in the south, while
133 *mangetti* forests crowd along the crests
of white sand dunes in the south and
east, and spread over the north. Their

137 nuts drop abundantly to the ground every year. There are ten permanent
133 waterholes—some clustered around the ring of the pans, the others set like infrequent jewels in a low limestone ridge along the eastern border. During the rains, small pans and hollows hold embroidered pools. Hollow trees also catch water and keep it until it turns brown, while several kinds of water roots can be counted on all year.

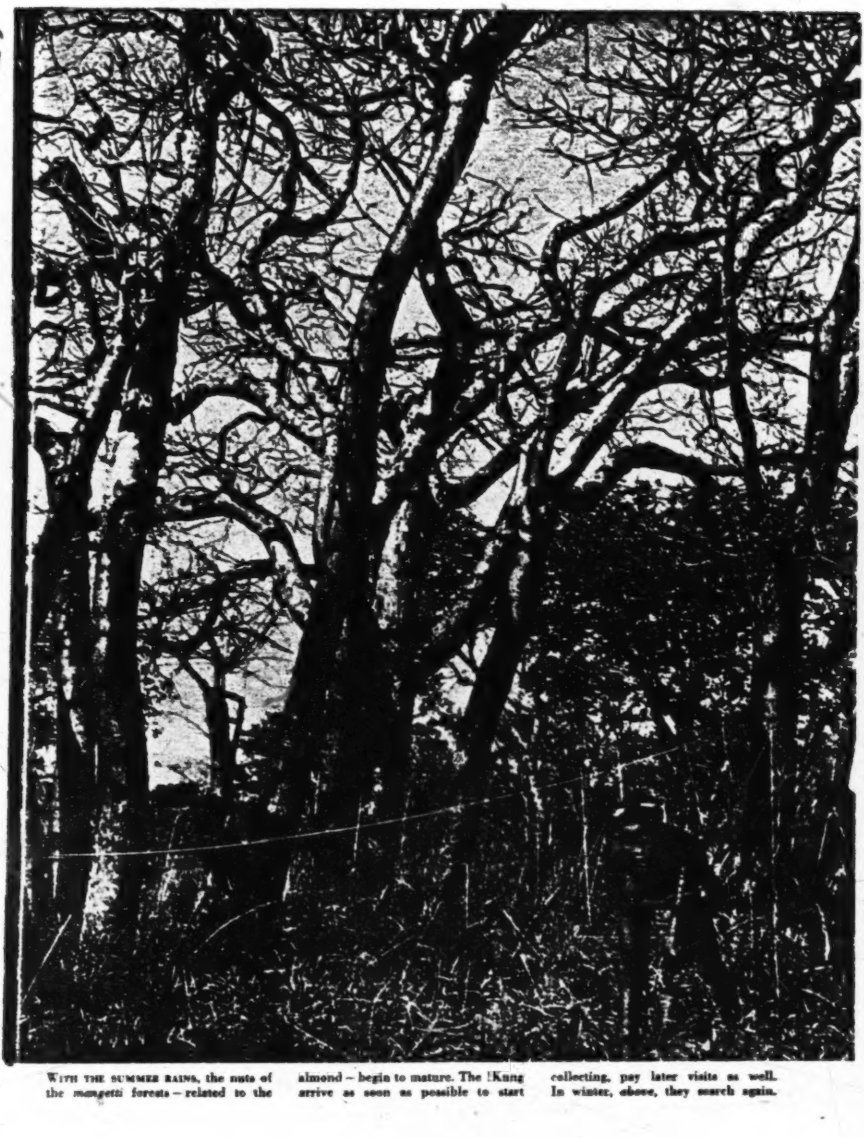
174 Until recently, few came and none but Bushmen stayed for long in *Nyae Nyae*, for there is not enough water to attract pastoral peoples, and the soils are not the best for crops. The !Kung say: "We have always been here, drinking the *Nyae Nyae* waters." Perhaps this "always" began at about the time when the western Bantu horn was moving southward through Ovamboland. All one can say for sure is that they came, possibly seeking sanctuary in the empty spaces of the Kalahari, found, in *Nyae Nyae*, a quiet

222
137

WITH THE SUMMER RAINS, the nuts of the *mangetti* forests – related to the almond – begin to mature. The !Kung arrive as soon as possible to start collecting. In winter,

[p.43]

222
137



WITH THE SUMMER RAINS, the nuts of the *mangetti* forests – related to the almond – begin to mature. The !Kung arrive as soon as possible to start collecting, pay later visits as well. In winter, *above*, they search again.

[p.44]

133
137

[516]

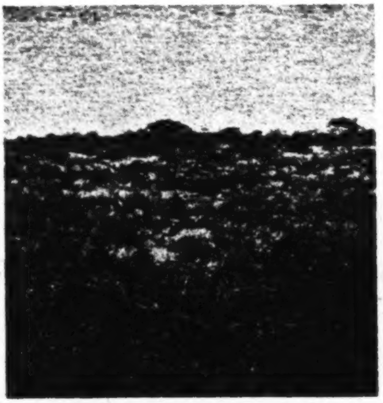


FIG. 1. The clustered scherms of a /Kung werf (left) are hardly visible in the grass and brush of the veld

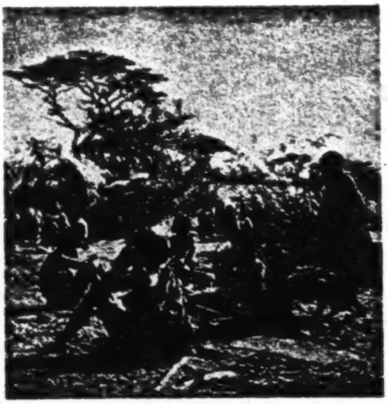


FIG. 2. Groups from Band 1 and visitors sitting at three family fires

291
516
301

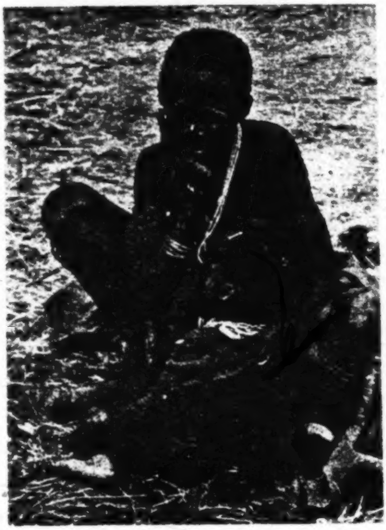


FIG. 3. Khuan//a thinking things over after 'the talk'

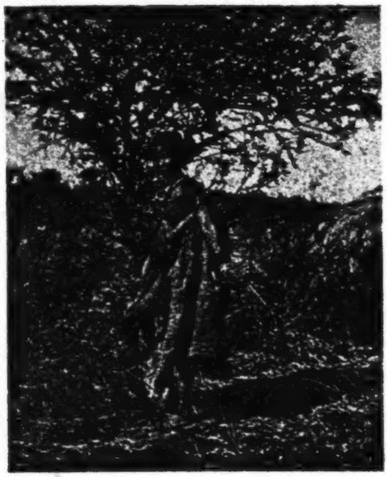
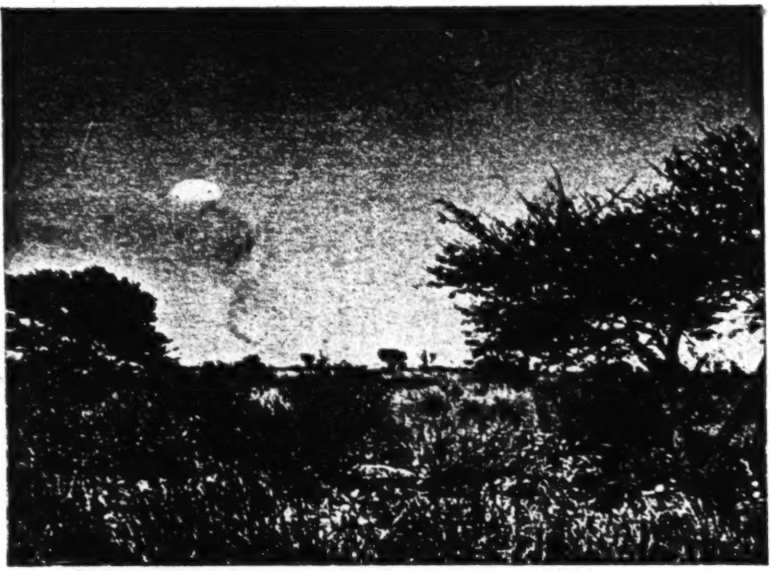


FIG. 4. /U, the wife of ≠Toma, with an expression which is characteristic of her

[p. 240-A]

13: Marshall E-5 (1952-1955) 1962 FX10 Bushmen FX10
Kung

133
137



1. Whirlwinds in the huge veld fires become pillars of cloud by day

516
787

2. The oracle disks

[p.228 (A)]

● 137

3. The boys may be climbing the baobab tree to look for honey or to look around the country for signs of game

[p.228 (8)]

15: Marshall E-5 (1951-1961) 1965

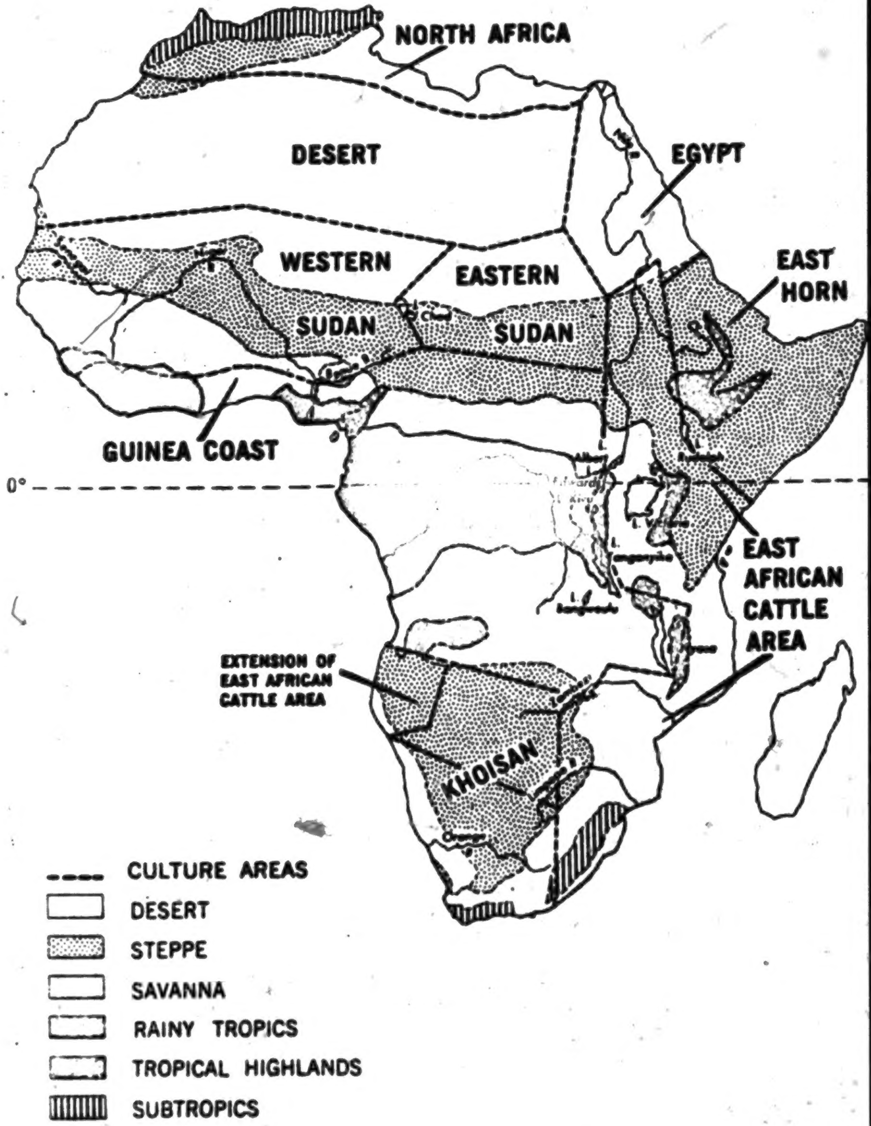
FX10 Bushmen FX10

!Kung

Africa F1

B
A
102
101
131
137

AFRICA: CULTURE AREAS AND VEGETATIONAL ZONES


NORTH AFRICA
DESERT
EGYPT
WESTERN
SUDAN
EASTERN
SUDAN
EAST HORN
GUINEA COAST
0°
EAST AFRICAN CATTLE AREA
EXTENSION OF EAST AFRICAN CATTLE AREA
KHOISAN
CULTURE AREAS
DESERT
STEPPE
SAVANNA
RAINY TROPICS
TROPICAL HIGHLANDS
SUBTROPICS

[Front Map I]

[p. i]

guages, some now virtually extinct, were characterized by a fifth click made 194
with the lips, called the kiss click (⊙). In addition to clicks, the Bushman 197
languages have tones: high, middle, low, rising, and falling. Oswin Köhler [114]
has given special attention to tone as well as to other features in his study
of Bushman languages, especially Barakwenga (Köhler 1962).

Each of the large divisions of the Bushman languages—the northern, 197
central, and southern divisions (see Bleek 1956)—differs markedly from the
others. Within each group are several languages, sometimes resembling each
other enough to be considered merely dialects of the same language, but
more often differing so widely as to be distinct, mutually quite unintelligible
languages. The !Kung described in this chapter (Köhler's and Westphal's
!Xũ) belong to the northern group.

HABITAT • The Kalahari Desert, some 1200 miles long, with a mean high 133
altitude of about 3000 feet, forms part of the great plateau of southern
Africa. It is a basin in form, covered with wind-blown sands, sometimes red, [134]
sometimes white, to a depth of 300 to 400 feet. The underlying rock crops
out rarely in ridges and a few low hills.

Stamp (1953:78) classifies the Kalahari as a semidesert. Its conditions 132
are not the most extreme. Our expeditions recorded daytime air temperatures
in the shade up to 115° F. and sand temperatures in the sun up to 140° F. In
winter the temperature at night falls below freezing but for most of the year
the nights are temperate. Although they seem acclimated to the heat, the [142]
Bushmen appear to find the colder temperatures very uncomfortable and
shiver violently if they are away from their fires when the cold south winds
blow.[5]

The rainfall, which comes in summer thunderstorms—6 to 10 inches, increasing 137
in the better-watered parts toward the north, according to Wellington [132]
(1955:61)—though slight, is sufficient to sustain a varied drought-resistant
vegetation, and the country is covered with grass, brush, and scant
small trees. In the northern and northwestern parts, the trees are more [824]
numerous and taller and include shivi groves and nut-bearing mangetti—
important sources of food to the Bushmen. And in all the areas of the desert
that Bushmen inhabit are found edible plants, in scant, far-apart patches perhaps,
but existing. The vegetation, furthermore, provides material for fires, 824
shelter, weapons, implements, tanning, poison for arrows, and juices (for example
tsama melons, on which these people can live when there is no water).
In short, this desert provides the things that make life possible; otherwise
the Bushmen would be dead or somewhere else.

The desert is a forceful shaper of the outlines of Bushman culture, and 182
both the possibilities it permits and the limitations it imposes have been meaningfully [114]
summarized by Robert Story in a personal communication:

182 A lack of permanent water is probably the most trying of the difficulties
312 which beset the Bushmen of the present day in the country which shelters
them. However, it is this very disadvantage which has ensured their survival,
[161] for while they have been dispossessed of their country and exterminated in
[648] the less arid parts, in the "Great Thirst Land of the Kalahari" they have been
comparatively safe from their European and Bantu enemies. The austerity
134 and hardships of the Kalahari are offset to some extent by its deep level
mantle of sand, which prevents run-off of the rainwater and makes it readily
available for plant growth. "Clay, for example, is as dry as dust to the plant
when it contains 18% of water, while most sands are very nearly saturated
with 18% of water" (Schantz 1911). This means not only that the sandy
soil can support more luxuriant plants in greater variety, but also that storage
organs are common among them, for drainage in sand is so rapid and thorough that shallow-rooted plants at least are in a stronger position if they
are able to collect and store the water before it sinks into the deeper layers.

●137 Although some of the storage organs are poisonous, the Bushmen still
have numerous edible bulbs, tubers and roots at their disposal. Thanks again
[222] to the sand, they can harvest these quickly and easily with wooden digging-sticks which would be inadequate in a heavy or stony soil. Other storage
[224] organs which they do not eat because of bitterness or high tannin or fibre
[262] content are nevertheless important indirectly through being eaten by the
various antelopes that are the Bushmen's meat supply.

Hunting is easier as well, for as there could be few better tracking sur-
224 faces than the Kalahari sand and, as a wounded animal can thus be followed
with very little risk of loss, hard-hitting weapons and careful aim are not
[411] necessary. Instead, the Bushmen use small poisoned arrows which have the
advantage of being effective on any part of the body and of bringing death
as certainly to big game as to small.

101 LINGUISTIC AND BAND GROUPINGS • The major groupings among the Bush-
197 men cannot correctly be called tribes; they are, rather, linguistic groupings
and the names by which they have been traditionally known by Europeans
refer to language: for example, !Kung-speaking Bushmen, Naron-speaking
[829] Bushmen. The Bushmen themselves and their Bantu neighbors use a multitude of names by which they refer to various combinations of local group-
[184] ings. Our own tentative and incomplete comparisons lead us to say that the
language groups differ from one another markedly in some customs while
they are much the same in others.

The language groups have no political unity among or within them-
[621] selves. The only social unit larger than the family is the autonomous band
[622] composed of several families and headed by a headman (see "Political Organization," p. 267). Each of the major groupings has many bands within it.

101 The Bushmen whose social structure I describe in this chapter are a
131 group of !Kung-speakers who call themselves *ju /ðassi* and who live in the
[197] Nyae Nyae region of South West Africa. It is a region of about 10,000

137
222

Gathering Mangetti Nuts

222 eral large groves of mangetti trees (*Ricinodendron rautanenii* Schinz) in the
262 region, all on great waterless white sand dunes, and one extensive area in
which *tsi* grows. *Tsi* (*Bauhinia esculenta* Burch) is the seed of the vine that
[782] runs along on the surface of the ground. Both mangetti nuts and *tsi* are excellent foods, rich in oils and proteins, and so important to the !Kung that
621 they organize their lives to a considerable extent around them.

423 Each band, according to !Kung social structure, owns and lives within
what we call a territory. The band, through its headman (in a way to be explained later), owns the veldkos and water resources within its territory. The territories are varied in size and shape and sometimes consist of portions that are not even contiguous. The boundaries are vague, for the need
[161] to draw fine boundary lines is not great. In the interior of the region, where
[162] water is so scant, in roughly 8000 square miles live only 17 bands, comprising 447 persons. The other bands and employed groups live on what we call the periphery of the region. The !Kung say that one cannot eat the ground itself so it does not matter to whom it belongs. It is the patches of veldkos that are clearly and jealously owned, and the territories are shaped in a general way
[361] around these patches. The !Kung of the interior have settled themselves in
[162] such a way that every band has access to areas of edible roots and to either a
mangetti grove or a *tsi* patch. A few bands have both.

423 The strong concepts of ownership of veldkos by the band operate almost
621 like a taboo. No external force is established to prevent one band from en-
[illegible] croaching on another's veldkos or to prevent individuals from raiding veldkos patches to which they have no right. This is just not done. Fear of fighting is one of the deterrents. The poisoned arrows of the Bushmen are as deadly

[p. 248]

They hang meat in the bushes to dry and can keep it for some time. It is not 251 uncommon for them to eat quite sparingly and save bits for a coming 261 journey or against a future day of hunger, as they eat sparingly of mangetti nuts and *tsi* when they must make a supply they have carried from a great distance last as long as possible.

The !Kung are well accustomed to restraining themselves in regard to 261 food. Thus when a visitor comes to a fire where people are preparing food 576 or eating, he should sit at a discreet distance, not to seem importunate, and wait to be asked to share.

Although the hunters supply only about a fifth of the people's food 433 and the women four fifths, the women play a dependent role in !Kung 462 society. Nevertheless, the men do not ill-treat the women and require no 572 extreme form of obedience or subservience of them.

The primary factor in the dominance of the men is undoubtedly 562 strength. !Kung men are small and slender, but they are wiry and vigorous 147 and, with their strength, they carry and protect the very life of their people.

Another factor that brings men clearly forward is the character of 562 hunting and its reward. Women bring the daily food, but there is nothing 462 splendid about returning with vegetables and wood. Many of the vegetable 262 foods, furthermore, are rather tasteless and harsh and are not very satisfying. 224 The return of the hunters is vastly different. The intense craving for meat, the anxiety that goes with the hunt, the deep excitement of the kill, finally the eating and the satisfaction reach to the very core of the people, engaging powerful emotions. Once a young man, /Qui, who was said to be the best hunter in the region, had been charged by a magnificent cock ostrich on a big open pan where there was no refuge. He knelt, facing the creature, until it was within close range and shot an arrow straight into its heart. Back in the werf, while the meat was being cut up and distributed by /Qui's [535] wife's brothers, he slept exhausted on the mound of black and white plumes and the women—some of the plumes in their hair—danced a dance of praise around him. This is the role of !Kung hunters.

MATERIAL CULTURE

HOUSE TYPE AND SETTLEMENT PATTERN • The 342 building of the scherm—the Bushman reed-and-grass dwelling—is women's [153] work, associated with vegetation and gathering. Each woman builds for her own family. However, unless no better shade can be found or unless it is raining, the women often do not bother to build these shelters. Especially after the long days of walking, it is easier just to settle in the bushes.

In the Nyae Nyae region, wood and grass are everywhere, and a [137] woman can gather her material and build her scherm in less than an hour. [761] She breaks up flexible branches about six feet long, digs holes with her

133 three rock outcrops and one ring of large pans. These features are illustrated in Map 12, p. 71.[1]

Soils and vegetation

134 The dune crests and flanks are characterized by deep
137 loose sand of red and white. These support a distinctive association of broad-leaved trees and shrubs. The molapos, both in the interstices of the dunes and in the more deeply incised river beds, are characterized by compacted grey soils. These molapos support an association of complex-leaved thorn trees and shrubs.

134 The color and composition of the soil appear to be a function of elevation. The color sequence from reddish to grey correlates with the texture sequence from loose to firm. These two sequences correlate with elevation within local drainage systems.

Thus the reddest, loosest sands are found on the crest of the dunes. The flanks of the dunes and the flats have buff white compacted soils, and the molapos have grey, highly compacted soils.

These sequences are schematized in Figure 1, p. 72.

---

[1] As of April, 1965, there are no maps available for this area. Map 12 is based on the examination of aerial photographs on file at Maun, B.P. and the author's rough transects by Land Rover.

● 137 Plant geographers (e.g. Keay 1959; Cooke 1964) have divided this region in half. The southern half has been classified as "Kalahari grassland or mixed open Acacia wooded steppe", while the northern half is called "Bushveld and grassland".[1]

In fact, both types of habitat occur throughout the area: the Bushveld on the dunes and the Acacias in the interstices and river valleys.

Other workers have previously noted the significance of this molapo-dune topography. Maguire (n.d. circa 1954) divides the region into three vegetation types: the Dune association, the Omaramba (basin) association, and the Intermediate association, although he fails to define clearly the constituents of the latter type.

Since each kind of vegetation supports characteristic series of Bushman food plants and water sources, each will be considered in detail.

I. The Dune Association: Unlike the moving dunes of the Namib and southern Kalahari deserts, the dunes of the northern Kalahari are fixed by vegetation. The dunes support relatively closed forests of Ricinodendron and open woodlands of Burkea, Pterocarpus and Terminalia.

---

[1] South African ecologists make a distinction between "Thornveld" with Acacia spp. dominant and Bushveld with broad-leaved forms dominant (Acocks 1953; Wellington 1955).

• 137 The major trees of the dune association are:

Ricinodendron rautanenii[1]

Burkea africana

Pterocarpus angolensis

Baikiaea plurijuga

Terminalia sericea

Other important constituents include:

Combretum mechowianum

Bauhinia macrantha

Ximenia caffra

Strychnos pungens

S. spinosa

Guibourtia coleosperma

[262] Ricinodendron rautanenii (the mongongo nut), the major food of the Dobe area Bushmen, is found only on the crests of [312] the fixed dunes. Because of the loose nature of the soils there is no standing water on the dunes at any season of the year. The only source of water on the dunes is the rain water which collects in the crotches of the mongongo trees from November to March. Although the volume of water stored is minute, the proximity of the supply to the nut groves makes this an important source of water for the Bushmen.

---

[1] The common tree species were identified with the aid of Miller (1952).

134 II. The Molapo Association

137 a) The bottoms of the dry river beds support a rather different association from the interstices between the dunes. The river valleys expose the underlying limestone formation. This rocky surface supports trees of the following species:

Commiphora africana
C. pyracanthoides
Combretum imberbe
Hyphaene ventricosa
Adansonia digitata

b) The interstices between dunes where the soils are compacted grey and limestone is only sporadically exposed, support the following:

Acacia mellifera subspecies *detinens*
A. heteracantha
Dichrostachys glomerata
D. cinerea
Croton gratissimus
Boscia albitrunca
Grewia flava

c) In some molapos the compacted soils are lighter grey verging on buff. Here are found dense thickets of *Terminalia prunioides* interspersed with stands of *Sclerocarya caffra*.

137 Certain species are characteristic of all three subdivisions of the molapo association, but are nowhere dominant.

137 These include:

Combretum imberbe

Hyphaene ventricosa

Dichrostachys glomerata

Grewia flava

The most important food plants of the Molapo association are:

Adansonia digitata

Hyphaene ventricosa

Grewia flava

Citrullus lanatus var. *vulgaris*

312 The molapo zones, being the lowest parts of the landscape, contain all the sources of permanent and seasonal standing water.

The permanent waterholes are confined to main river bottoms where the limestone is exposed. Most of these waterholes are natural fissures in the rock, but all have been improved and maintained either by the Bushmen themselves or the Bantu cattle herders.

The seasonal waters that exist for one to six months of each year are found both in the main river bottoms and in the dune interstices where local drainage patterns produce a catchment. These latter vary in size from small depressions 25 feet in diameter and a few inches deep, which hold water

312 for a few weeks after heavy rains, to great ponds up to 400 feet long which may hold water several months after the rains have ceased.

134 III. The 'Flats' Association: Intermediate in elevation
137 between the dunes and the molapos are plains of buff to white compacted sands. These plains or flats support a vegetation which has affinities to both the dune and molapo associations. It also contains species that are not found elsewhere.

The flats may be divided into two intergrading types on the basis of soil differences:

a) looser buff sands supporting species that extend into the dune association and also several other diagnostic species.

b) compacted white sands supporting species that extend into the molapo association as well as several other diagnostic species.

III. a) Flats of loose sand have the following diagnostic species:

Lonchocarpus nelsii

Acacia giraffae

A. gilletiae

A. fleckii

as well as:

134
137

Terminalia sericea

Sclerocarya caffra

III. b) Flats of compacted sand have the following diagnostic species:

Acacia stolonifera var. A. hebeclada

A. dulcis

Ziziphus mucronata

as well as:

Hyphaene ventricosa

Terminalia prunioides

Combretum imberbe

Grewia flava

The most reliable marker species for distinguishing vegetation zones are:

1. Ricinodendron -- found only on dune crests
2. Commiphora africana -- found only on limestone
3. Terminalia sericea - T. prunioides -- These two species of Terminalia are sharply segregated ecologically. T. sericea is ubiquitous on looser buff to white sands but never on compacted sand. T. prunioides is found only on compacted buff to grey sands, never in loose sand.

133 The Dobe area vegetation and water: The foregoing remarks apply broadly to the 25,000 sq. miles delineated above. The Dobe area in the center of this tract contains all the major physiographic features (dunes, molapos, rock outcrop, pans) and will therefore illustrate the local patterning of

132 dates of onset and termination of the main rains. For
805 instance, in 1963-64, the major rains were concentrated in
an eight-day period in late November and early December and
were very light during the next three months. In the following
rainy season, 1964-65, the major rains came later.
They were only just beginning when we left the study area in
[137] January, 1965. During the period of the main rains, the
[312] major summer foods (fruits, berries, melons) make their
[262] appearance, and there is standing water in the molapos far
from the permanent wells.

3. ≠obe (autumn) -- The autumn season is brief. In
[312] 1964, it fell in April after the rains had ceased. The
weather remains warm and the high evaporation rates rapidly
dry out the pools of summer water.

4. !gum (winter) -- This cold dry season extends from May through August. It is heralded by a sharp drop in nightly temperatures and during 1964 the Dobe area experienced six weeks of freezing or near-freezing nights in June and July. The days are clear and, by tropical standards, cool, often characterized by strong dessicating winds from the south and west with gusts estimated at up to 40 knots.
[312] Water is available only at the permanent wells and plant foods
[262] become increasingly scarce as the season progresses.

5. !gā (early spring) -- This season begins in late

V. SUBSISTENCE ECOLOGY: AN OVERVIEW OF PLANT AND ANIMAL RESOURCES

121 The concept of a hunting and gathering way of life has
assumed a misleading connotation in the ethnographic lite-
rature. The term has come to imply a random precarious
existence searching for food, an eking out of subsistence
[433] of odds and ends. Since the present study is the first de-
tailed analysis of the food habits of non-agricultural people,
it should be stated at once that the Bushman subsistence is
based on a systematic strategy of exploiting abundant food
222 resources. Very little of their food gathering is left to
chance. Their knowledge of the local environment, of the
habits of game and the growth phases of food plants is
virtually exhaustive. In other words, the Bushmen know
where the food is at each season of the year and they arrange
their schedule of activities to take maximum advantage of
these resources. They do not allow themselves to get into
difficult situations, and even during the season of scarcity
they have available several alternative strategies of getting
food and water.

262 The security of their life is in part due to the fact
137 that the basis of their subsistance is plant foods which are
136 abundant, local and predictable. Meat is of secondary impor-
tance in the Bushman diet. Game animals, by contrast to

262 plants, are scarce and unpredictable and people never depend
137 on meat for their basic subsistence. Therefore the well-
136 433 being of the Bushmen as a population can be viewed as the
product of two factors: the abundance of food resources in
their environment, and the intelligence and sophistication
which informs their exploitation of these resources.

512 Although the getting of food is the major activity of
433 Bushman life and is a major focus of Bushman thought, the
greater part of the waking life of the Bushmen is given over
to social, religious and trading activities that are largely
independent of the food quest.

Their emphasis on non-subsistence activities becomes
clear when daily records are kept of the activities of the
[126] members of a camp. For example, a diary of activities was
kept for the Dobe camp during July, 1964. This record was
made during mid-winter, a season of comparative scarcity. It
[462] was found that the 23 adults of this camp spent less than
half of their days in subsistence activities, an average of
23% of the time for the women and 40% of the time for the
[574] men. The majority of their waking hours were spent visiting
[521] other camps, entertaining visitors, resting, talking, hut
building, and making tools, clothing, and ornaments.

Plant Resources

137 136 There are well over 200 species of plants and 220 species

137
136 of animals named and known by the Dobe area Bushmen. Of
[126] these 420 species, 350 species were collected and identified
433 by the author. Two-thirds of the plant species and half of
824 the animal species are utilized by the Bushmen. Of these,
825 they classify 85 species of plants and 54 species of animals as edible. It is therefore evident that the Bushmen have a remarkably broad subsistence base. On closer examination, however, one finds that the Bushmen are highly selective in their food habits. In fact, only nine species of plants constituted about three-quarters of the total vegetable diet; and one species alone, the mongongo nut, accounted for at least half of the total. Furthermore, of the 54 animal species eaten, only 17 species were consistently hunted.

824 A plant species may be regarded by the Bushmen as a
262 major food for one or more of several reasons. Certain foods are prized because of their abundance or because of the long season during which they are available. Other foods are prized because of the ease with which they are collected. For this reason fruits are generally more popular than roots since the latter have to be dug out of the ground. Then there are foods which are especially good tasting and/or believed to be highly nutritious. The various plant foods are evaluated pragmatically and rationally and few species
825 are restricted by magico-religious taboos. This is in sharp
262

311 area of each territory.

[312] Second, the area and shape of an individual territory is
[824] influenced by the distance between the important resources
within it, such as water sources and mongongo nut forests.
It is these point resources and not the spaces between them
that are the significant features of the landscape.

Third, territories overlap each other and there is disagreement as to the ownership of these overlapping areas. Most Bushmen say that these areas are owned by all, which means, in effect, that they are owned by no one.

Each of these features will be discussed in detail.

1. Hinterland - It was mentioned earlier that the Dobe area
[312] was surrounded by a belt of uninhabited country. Except for
a few summer months there is no standing water in this belt
and, as a consequence, the Dobe area people rarely bother to
hunt and gather within it. This outer belt is not lacking
[136] in food resources, however. Surveys of the country by Land-
[137] Rover indicate that the game and plant foods there are even
more abundant than they are within the traditional territories.
Why then are these resources so infrequently utilized?

311 The answer lies in the fact that the Bushmen can usually
312 satisfy their annual subsistence requirements within a radius
361 of 15-20 miles from their permanent waterholes. Whenever
possible the Bushmen prefer to make their camp sites at

VIII. WATER AND THE SEASONAL ROUND

133
137 The Kalahari desert is not a food poor area. Most of it is situated between the 10 and 20 inch isohyet and therefore it is marginal for cultivation (without irrigation), but the desert supports a remarkable abundance and variety of edible wild plants which have become genetically adapted to arid conditions.

Geographers have classified the Kalahari as "desert" because of the lack of surface water (Wellington 1955 etc.). This in turn is a function of the sandy terrain which supports surface water only during a brief summer season. In the few localities where the underlying geological formations are exposed, permanent standing water is found. And these point sources of water are usually surrounded by waterless belts of
312 up to 200 miles in width. Edible plants on the other hand
824 are widely distributed both in the immediate vicinity of water
433
221 and at considerable distances from it. The geographical separation of food and water in certain seasons is the critical problem of !Kung Bushman subsistence.

This is not a major problem during the rainy season when seasonal standing water may be found in close proximity to the concentrated food resources. Nor is this a major problem during the early winter when food is available around the

221
312 30 or more people) and Bantu cattle posts. These were located
361 at Characharaha, Mahito, !gun≠isa and /wihaba. Map 18 illus-
[162] trates the distribution of population during the late summer
(March 1964).p. 159.

221 Life at the summer pans is, by Bushman standards, luxur-
• 137 ious because all of the major and minor fruits, berries,
433
222 melons and leafy greens become available. There is a succession of ripening of the major foods throughout the summer months. The first to ripen are the leafy greens (Dipcadi and Talinum), followed by the sour plums (Ximenia caffra and X. americana), then the melons (Citrullus lanatus and C. naudinianus), and the Grewia berries (Grewia flava comes first followed by six other species). By the time the plums have become scarce the melons are ready for eating. As the melons become worked out the Grewia berries ripen. Each of six species of Grewia comes into ripeness at a different time, so that every two weeks throughout the middle of summer another species of Grewia became ready for eating. Throughout the early part of the summer the mongongo nuts are available but these are the nuts from the previous year's fall. It is not until April that the current year's fall of nuts occurs. And then a new cycle of working out from the camp occurs. This illustrates again the selective gathering habits of the !Kung Bushmen.

132 highs in the 90's. The warmer weather heralds the onset of
312 spring which is the most difficult season of the year. Most
• 137 of the waterholes have no mongongo nuts within a ten mile
222 radius. The alternative foods, roots and bulbs, are being collected daily by some of the people, while others are making the long overnight journeys to the nut forests.

221 Since territories vary in the abundance of early spring
574 foods there was a noticeable tendency for families to visit
628 other camps. For instance in September, Bate still had a good supply of *Sclerocarya caffra*, nuts, and several families from Dobe, Mahopa, and !angwa converged upon Bate to eat these nuts. Similarly !ubi had a supply of Baobab fruits (*Adansonia digititata*) and other families made extended visits to relatives there. The maintenance of close ties between camps made possible a more equitable distribution of foodstuffs, so that, if there was scarcity at one camp, and food at another, the members of the first camp would not go hungry. This is one of the highly adaptive features of the fluidity of !Kung group structure.

[563] Some families fall back on the Herero villages at this
[431] time of year to beg for milk. This occurs especially among those people who have a sister or cousin married to a Bantu man. Both the Bushman and Herero codes of good manners demand that visiting in-laws be fed (L. Marshall 1961).

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX10.

and Middle Kalahari that it is scarcely possible to traverse parts of the country, and many routes can only be followed at such times as the pools have been filled by recent rain. H B 133

The winter climate is delightful. The heat during the other months is great, but there are occasional short, sudden, and therefore treacherous changes from extreme heat to cold. Malarial fever is prevalent, being particularly severe in the neighbourhood of the watercourses and other low-lying places, where during and immediately after the season of the heavy rains the dense bush, thick undergrowth, and rank vegetation afford excellent shelter to mosquitoes. The rainfall varies from about 8 inches in the south-west to more than 20 inches in the north and east; almost all the rain falls in the summer months, December to April, and chiefly in thunderstorms. Except in the north, none of this rainfall reaches the sea, the water being either evaporated directly or flowing into shallow depressions such as Lake Ngami and the Great Makarrikarri salt-pan. Over wide areas the country is so flat that the rain drains off partly in one direction, partly in another. H B 132 164

The principal river in the north is the Okavango, which, rising in the Angola highlands, flows into the Okavango marshes, a region about a hundred miles in length and from ten to fifty miles in width. From this reed-choked swamp the river at certain seasons overflows on the north into the Kwando and so reaches the Zambesi, and on the south into Lake Ngami and the Botletle River, which feeds the Makarrikarri depression and the great sandy plains of the north-east. During the rains the whole of this region is covered with wide stretches of water, often extending far beyond the horizon. The Nossob, Molopo, and Kuruman Rivers in the south, which formerly drained the greater part of the Middle and Southern Kalahari into the Orange River, are now for the most part sandy beds bordered with trees, and water is seldom found except towards their heads. At the present time no water leaves this part of the Kalahari except through evaporation. The country appears to be suffering from progressive desiccation, but there is said to be good evidence of an abundant supply of water not far beneath the surface. H B 133

The rainfall, though very small in the west and south, enables a fair amount of vegetation to flourish, chiefly grasses, shrubs, and trees, except in certain areas where the soil is too saline. The great plains, more especially in the south, are covered with tough sun-bleached Bushman grass (*Aristida brevifolia*), growing knee-high and giving H B 137

H-B 137 the country the appearance of a vast cornfield. Considerable portions, chiefly in the west and north, are, however, covered with dense thorn bush, while in the north-west the whole region is well timbered and merges into thick tropical vegetation. Along the river beds throughout the country are dense thickets of Acacia (*detinens*, *giraffae*, and *karroo*), almost impenetrable in parts and often harbouring great numbers of wild animals. Large forest trees such as mopane, commiphora, and here and there baobabs are found in the north. Succulents, such as the *Aloe dichotoma* and *Euphorbia dinteri*, abound wherever there is rocky soil, while leguminous and bulbous plants are an important feature of the vegetation in all parts. The most remarkable of these plants is the well-known *tsama* melon (*Citrullus vulgaris*), which owing to its nutritive and thirst-quenching properties is a veritable staff of life in many parts of the country during the height of the dry season.

H B 137 Towards the western border of the Kalahari, as the superficial deposits become thinner, ridges of rock make their appearance and become more and more numerous, the ground-level rises generally, and the region passes by degrees into the highlands of South-West Africa, which form the western edge of the vast interior plateau. This whole territory is practically one great series of undulating elevated plains, intersected by small mountain ranges, of which the Brandberg near the coast rises up as high as 8,277 feet above the sea.

In the far north-west is a chain of rugged mountains stretching south-east through the highland region of the Kaokoveld at a distance of 25 to 40 miles from the coast. Further inland the north-east Kaokoveld consists of an elevated plain, sloping abruptly towards the Kunene River and Ovamboland; from it hills emerge to the south and west. Ovamboland, which shares the characteristics of the Kalahari region, is a slightly undulating sandy plain, intersected by a number of shallow watercourses filled by the Kunene overflow and draining to the Etosha Pan. Towards the south of the Kaokoveld there is a general decrease in height. This southern portion, a country of steep, rocky hills with narrow valleys, passes over to the east into the Karst region, for the greater part a wide plain sloping gently towards the Etosha Pan and characterized by the formations associated with dolomitic limestone. The usual features of this kind of country are met with: sink holes, subterranean caverns and springs, and the absence of defined waterways, due to the porous character of the surface covering.

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot FX13

Bushmen FX10

H B 133 flow for any considerable distance. For the rest of the time they have water only below the bed or in pools. Away from these sandy beds water as a rule is extremely hard to find. After heavy rains great hollows in the rocks are filled with water which is a blessing to any traveller passing that way, and there are also vleis and depressions which hold water for a short while. Springs, however, are few and far between, and then generally occur in the river-courses.

H B 137 Corresponding to the variation in the rainfall there is a variation in the character of the vegetation. In the extreme south for a considerable distance semi-desert conditions prevail, the arid, stony plateaus and plains supporting a sparse growth of grass and small, scrubby bushes, including the different species of *Grevia* which produce the wild berries so much used by all the natives as food. In heavy rainy seasons, however, nutritious grasses and flowers spring up everywhere. The river-courses are clothed with trees, especially the Kameeldoorn (*Acacia giraffae*) and the Kokerboom (*Aloe dichotoma*), and in all of them, too, the South American *Nicotiana glauca Grah.*, the wild tobacco plant, is found as a straggly, weedy shrub or tree. Northwards the veld assumes the characteristics of the Karroo until Rehoboth is reached, when it changes into park-like grass country studded with large thorn trees, being especially well timbered along the watercourses. From the mountainous portions of the Windhoek district northwards towards Omaruru the country is covered with level bush with an undergrowth of very nutritious grass, the valleys and watercourses being well wooded mostly with Acacia trees, especially the Kameeldoorn. Towards the north the bush becomes denser until it is fairly well timbered all over. In its northernmost section it is traversed by belts of open Mopane forest, and towards the Okavango fertile tropical vegetation is abundant. Numerous kinds of fruits, roots, and tubers used by the natives as food are found over the whole region, but most abundantly in the north. The edible bulbs belong for the most part to the *Iradaceae* family, while the tubers are generally *Asclepiads*, though the *Cyperaceae* and the *Oxalidae* also furnish succulent tuber-like growths.

H B 132 133 South of the Orange River the rocky western edge of the great interior plateau is extended into the highlands of Little Namaqualand in the Cape Province. With scanty soil and low rainfall (5 to 15 inches) this region shares the characteristics of the southern portion of South-West Africa. Short perennial streams are found in the Kamiesberg, but the mountainous country enclosed by the great bend

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX 10.

of the Orange River is very dry. The level arid plain of Bushmanland H
further east is essentially a continuation of the Kalahari, from B
which it is separated by the deep rocky valley of the Orange River.
The summer rainfall is low (5 to 10 inches), increasing gradually 132
from the west eastwards; there is practically no surface water, and the 133
soil is usually bare, stony or sandy. The river-beds are mostly dry
throughout the greater part of the year, and the Orange River is the
only one that always contains water. The general aspect of the H
vegetation both here and in Namaqualand is that of widely-separated
xerophytic shrubs and bushes, with a fair proportion of succulent B
plants in the low-lying valleys and on the rocky outcrops. Grasses 137
do not form a conspicuous feature, but they occur on the high
plateaus and sandy plains, where the vegetative period is short, and
where they always assume a tufted habit.

Further south and east is the Upper or Northern Karroo, an arid H
tract of country stretching northwards to the Orange River at an
elevation of between 2,800 and 6,000 feet above sea-level. It is B
bounded on the west by the Roggeveld, on the south by the Nieuweveld 133
and Sneeuwberg ranges, which form part of the great escarpment
of the interior plateau. The landscape appears for the most part
in the form of vast treeless plains, only here and there broken by table-topped
hills boldly scarped by sandstone and dolerite sheets, while
occasionally dark ridges, the outcrops of inclined sheets of dolerite,
are seen traversing the country for many miles.

The region is exposed to great extremes of temperature. Severe H
frosts are experienced in the winter nights, while the summer heats
are correspondingly severe, reaching at times to 110° F. in the shade. B
The feeling of oppression at such times is increased by the hot westerly 132
winds which predominate during the first half of summer, although
the nights are cool even during the periods of greatest heat. The
winter days, on the other hand, are very enjoyable, the air being
keen and bright with a maximum of sunshine. There is a wide range
of rainfall, from less than 5 inches in the north-west to 25 inches in
the east; the greater part of this falls in violent summer thunderstorms,
and almost all the water runs off the sun-baked soil into deep
gullies which hurry it off to the sea. Severe droughts are common, H
and the streams are all intermittent. The soil is shallow and rock-strewn, B
except in the alluvial tracts in the valley bottoms, and surface 133
limestone becomes an important feature in the drier parts of the 134
region. Pans are abundant, and a striking feature in the low-grade

H B 133 134 valleys of the north-west are the wide "vloers" of Carnarvon and Calvinia, more or less well-defined flat areas a few miles wide and thinly covered with brackish silt.

H B 137 311 Owing to the great range in rainfall and altitude there is a considerable diversity of conditions in this region. While the north-western parts are little better than desert, the more favoured districts to the south and east are well covered with permanently-occupied farms, although agriculture is restricted to the alluvial tracts. The vegetation is everywhere of a semi-desert character. The greater part of the country supports only a sparse and incomplete covering of shrublets and stunted, skeleton-like bushes, most of which belong to the family *Compositae*. In spite of their unpromising appearance when burnt up by the rays of the summer sun, they afford excellent sustenance for stock even in the driest seasons, and at the present time they provide nourishment to millions of sheep and goats, supporting one of the great wool growing industries of the world. Thorny plants, succulents, bulbous and tuberous plants abound in places, but trees, principally Acacias, appear as a rule only along the dry sandy river-beds. Grasses are frequent in the rainy season, but nowhere form the dominant feature of the vegetation.

H B 132 133 137 The High Veld of the Orange Free State and the Southern Transvaal is essentially an extension eastwards of the Upper Karroo, but has a much better rainfall. Lying for the most part over 5,000 feet above sea-level, and with an invigorating climate, it is perhaps the most favourable region in the Union for a white population. The rainfall ranges from about 20 to 35 inches, and occurs principally during the summer months in thunderstorms. The winters are dry and cold, and severe frosts are by no means uncommon. The streams are often perennial. The country generally presents a most monotonous type of scenery, consisting of vast rolling plains, although as one travels westward towards drier regions the surface becomes flatter or more varied by steep-sided flat-topped hills. It is essentially grass country and for the most part devoid of indigenous trees, except along the river-banks, which are frequently clothed with willows and mimosas; shrubs are found on the koppies, while growing among the grasses are large numbers of bulbous and tuberous plants.

H

The Coastal Regions

B 133 The country between the escarpment and the ocean is considerably smaller than the interior plateau, but as regards climate and structure

H B 133

it presents as much diversity. Along the west coast from the Olifants River northwards as far as the Kunene stretches a desolate and barren wilderness, well deserving the name of "Namib" or desert by which it is known in South-West Africa. This arid tract varies in width from 18 miles in the north to about 85 miles towards the south, and the ground-level rises gradually and evenly from the sea to the plateau. The greater part of the surface is covered by drifting sand dunes, which stretch in wave after wave to the horizon; here and there low gravelly hills and ridges of hard rock project through the mantle of sand, while in places gravel plains and sandy flats vary the monotonous billow of the landscape. The belt of dunes is widest and most continuous south of the Swakop, some of them reaching a height of 300 feet and over; further north they are at once much less continuous and much lower, and the country east of them is more broken. The Northern Namib is further distinguished from the Southern by the presence of watercourses which have kept an open channel to the sea.

H B 132

The cold Benguella current sweeping the coast from the Antarctic is primarily responsible for the aridity of this region. The coast is dominated by cool winds from south and south-west for about 50 miles inland, although there are occasional very hot winds from the east during the dry season. The winds blowing inland over the cold water lose a considerable amount of their moisture, which hangs as a dense mist over the coastal border almost all the year round, but especially heavily in winter. The Namib in consequence is a practically rainless desert, the mean annual rainfall at Walvis Bay, for instance, being 0·3 inches, and at Port Nolloth 2·17 inches. The temperature, lowered by the Antarctic current, is fairly constant. Port Nolloth in the south, with a mean annual temperature of 57·5°, has the least annual range of temperature in South Africa; February the warmest month has a temperature of only 60·1°, while July the coolest month averages 54·2°.

H B. 137 ●

The result of the deficient rainfall is a very scanty, intensely xerophytic vegetation. The plants are stunted and dwarfed, and nowhere form a conspicuous covering to the earth. Here and there considerable areas are almost entirely devoid of vegetation, although along much of the coastal border the wet and heavy sea fog maintains a sparse cover of bush on the sandy ground. From about 25 miles inland the landscape is characterized by such plants as the milk bush (*Euphorbia*) and cacti, while towards the east, in years of abundant rainfall, the country is fairly well grassed. In the river beds rich

H B 137 [231] verdure may be found, such as various Acacias, the principal of which are the Kameeldoorn (*Acacia giraffae*) and the Ana (*Acacia albida*). The leaves and pods of the latter provide the staple food for the cattle, sheep and goats in these parts. H B [262] Other characteristic vegetable growths are the inflammable candle bush (*Sarcocaulon Burmanni*) and, in the area inland from Walvis Bay, the famous *!naras* (*Acanthosicyos horrida Welw.*), a leafless cucurbitaceous plant with an edible melon-like fruit which when in season forms practically the sole article of diet of the natives. In one or two spots is found the most remarkable of all, the unique gymnosperm, *Welwitschia mirabilis*, which during a long lifetime produces only two pairs of leaves.

H B 133 At the Olifants River commences another tract of country, characterized by mountains of the folded type, which extend in parallel ranges, separated by wide valleys, over the whole southern portion of the Cape Province as far east as Humansdorp. From the narrow coastal strip fringing this tract the ground rises more or less abruptly to the mountains of the Folded Belt. H B [132 137] To the west the rise is gradual through the fertile Goudini valley of Worcester district; further eastward the vegetation and climate partake more and more of the Karroo character, the Oudtshoorn valley and the many kloofs to the east being generally known as the Southern Karroo. The scenery here rapidly changes to bare uninteresting veld, traversed by deep gullies which are generally dry in the summer. In all directions the landscape is bounded by barren-looking mountains, whose steep, rocky sides appear from a distance to be entirely destitute of vegetation. Nothing can exceed the contrast between the scenery on the opposite slopes of the coast ranges: the traveller from the south, after ascending through luxuriant vegetation, frequently clothed in mist, emerges suddenly into a region of precipices and rocks, where rain may not have fallen for months. The soil in the valleys, however, is fertile when it can be brought under irrigation.

H B 32 The total annual rainfall is by no means deficient, the average for the region being about 29·5 inches, although it varies greatly according to locality. The average for the Cape Peninsula is 40 inches, most of it falling on the eastern side of Table Mountain. Immediately to the east of Cape Town and as far as Knysna there is a decrease to between 15 and 20 inches. The rainfall then becomes more abundant, the well-wooded Knysna itself being one of the best-watered districts of South Africa, with an average rainfall of 40 inches. Further inland, except on the mountain slopes, the rainfall is much less, and the range of temperature is somewhat greater. Most of the rains fall during the winter (April to September), when the temperature, though mild, is still relatively low. The summer is the dry season, and long droughts regularly recur.

H B 132

These climatic conditions have resulted in the production of a peculiar and characteristic type of vegetation. The dominant plants are evergreen shrubs some three to six feet high, usually with small, stiff, leathery leaves. Between the shrubs are many smaller plants, numbers of which possess bulbs, tubers or other subterranean organs storing up quantities of water and food substances. The sandy plains support a dwarf, heath-like vegetation, while the marshy hollows, the stream margins, mountain ravines and mountain summits all possess their own peculiar plant forms. The families characteristic of this region include the *Proteaceae*, to which belong many of the evergreen shrubs, among them the well-known silver tree (*Leucadendron argenteum*) of the Cape Peninsula and the sugar bush (*Protea mellifera*); the *Restionaceae*, a family of grass-like plants which largely take the place of true grasses in this region, though many of the latter occur as well; and the *Ericaceae* (heath family), which are very numerous and often strikingly beautiful. Forest patches are found in the kloofs and seaward sides of the mountains, the largest area of more or less continuous forest in the Union lying between the Outeniqua Mountains and the sea, extending from George through Knysna to the Humansdorp district. They are composed almost entirely of high timber trees, the more common being species of yellow wood, cedar, ebony, stinkwood, ironwood, and sneezewood.

H B 137

The last natural region with which we are concerned is the Central or Great Karroo of the Cape Province. Lying at a level of from 1,500 to 3,000 feet above the sea, it stretches as a gently-undulating plain from the foot-hills of the Folded Belt to the mountains forming part of the great escarpment in the north. On the west it extends to the valley of the Olifants River, while in the east the Sundays River may be taken as marking its limit. The mountains of the Folded Belt rob the rain-bearing winds from the sea of their moisture, and so give rise to the aridity of this region. The rainfall is scanty, the annual mean being less than 5 inches in the west, although it increases to 15 inches in the centre and east. The surface soil is shallow, hard, and compact; the river-courses are dry, except during the brief periods of rainfall in the summer, when the bulk of the water is rushed off immediately to the sea. In the dry season the whole region presents

H B 133 132

H B [134]

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot FX13

Bushmen FX10

H B 133 132 [137] a most desolate appearance. Verdure is entirely wanting, the numerous gullies are empty, and the low ranges of ironstone koppies which dot the plains seem to reflect the heat as from a mirror. The vegetation is composed very largely of drought-resisting thorn bushes, succulents, bulbous and tuberous plants. Grasses appear only in exceptionally wet years, while trees are usually absent, except along the dry river-courses and on the mountain slopes in the east, where the rainfall is highest. H 8 [312 492] Till the early years of the nineteenth century the Great Karroo was regarded as a desert unfit for man or beast; since then well-sinking and donkey transport have bettered the conditions, and the region has gradually become occupied.

FAUNA

H B 136 The great variety of habitat provided by the country taken as a whole has naturally favoured the development of a varied and abundant fauna.[1] South Africa has long been renowned for the wealth of its larger forms of animal life, although with the advance of European settlement and colonization the numbers have been rapidly reduced, particularly of certain classes of big game. The native inhabitants had certainly done something to reduce the numbers and affect the distribution of the fauna, but a balance had been reached which still left the country richly stocked. The Cape was full of game when the first European settlers established themselves there 250 years ago, and in their gradual spread inland the white men found the same abundance of fine forms of animal life in each new tract of country that they entered. A few decades were enough to convert each newly-opened district from a hunter's paradise into a stock-farming country, and the increase of veld-burning carried the destruction into other zones of life. But over large parts of South Africa the face of the country itself has been little changed on the whole, and a good deal of the original fauna has survived, even on much of the enclosed land.

The mammalian fauna is, or rather was, characterized by the great abundance and variety of antelopes, the presence of such remarkable "living fossils" as the elephant, giraffe, rhinoceros, hippopotamus, and aardvark, as well as of the buffalo, zebra, and quagga, and the abundance of carnivora, large and small. During the eighteenth

---

[1] An excellent short account is given by Dr. E. L. Gill, "Descriptive Sketch of the Fauna of South Africa," *Official Year Book of the Union*, No. 9, pp. 31-41. Cf. also Passarge, op. cit., pp. 78-86.

141

141 **ANTHROPOMETRY**--mean, range, and sex distribution of physical measurements (e.g., stature, weight, span, length of limbs); indices (e.g., cephalic, nasal); etc. See also:

Postures	516	Conception of ideal bodily proportions	826

Auen

/135 cont./

144 (Ngamiland): "I should like to observe briefly that the Kalahari
197 Bushmen are low in my estimation, both in respect to their language and to their appearance; I was able to confirm an extremely close relationship with the Nama [Hottentot], but in an old dialect no longer spoken today."

141 Since I lack the knowledge for making anthropological measurements, I shall confine myself to /136/ presenting several ≠Auin types as I observed them. They may not be without value for comparative purposes.

I should like to add that in measuring physical height I obtained the following results:

Adult men (between 20 and 40 years of age)	
Average	1.51 1/2 meters
Maximum height	1.62 meters
Minimum height	1.47 meters
Adult women (between 20 and 40 years of age)	
Average	1.45 1/2 meters
Maximum height	1.53 meters
Minimum height	1.38 meters

A. Geography and Statistics

The ≠Auin, as they call themselves and as they are known to
131 the neighboring Bushmen tribes, inhabit that part of the central
Kalahari which is more or less immediately bounded by the watering places Rietfontein, Ganab, Gam, Sidonitzaub, Otjiamangombe,
Tjumda, Epukiro, Oas, Stampriet, Rooigrauwater, and Habakobis.
Their territory lies for the greater part within the boundaries of
the German protectorate. The adjoining sketch indicates as accurately as possible the geographic location, as well as the approximate territory of the neighboring Bushmen tribes. The
101 Hottentot designate the ≠Auin as ≠Au-San (Schinz), the inhabitants of the Chanse Veld as ≠Aukwē (Passarge), the Betschuana
[Tswana] as Makaukau. The approximate number of Auin (1),

[104] 1. For the sake of simplicity I shall from now on omit the initial mark ≠, which indicates the click.

/241 cont./

128 Tables giving all the /242/ measurements for each individual, are attached, as are forms for the observations concerning the descriptive characteristics of the individuals measured.

● 141 The average values for the adults measured are as follows:

	Men	Women
1. Body height	155.3	149.7
2. Height of the chin above the ground	135.7	130.6
3. Height of the navel above the ground	93.2	90.4
4. Height of the upper edge of the symphysis above the ground	82.2	79.6
[Fig. 1 appears here.]		
5. Height of the acromion above the ground	130.5	124.9
6. Height of the elbow joint above the ground	99.9	96.5
7. Height of the projection of the radius above the ground	76.0	73.4

[142]
[291]
[301]
[342]
[516]

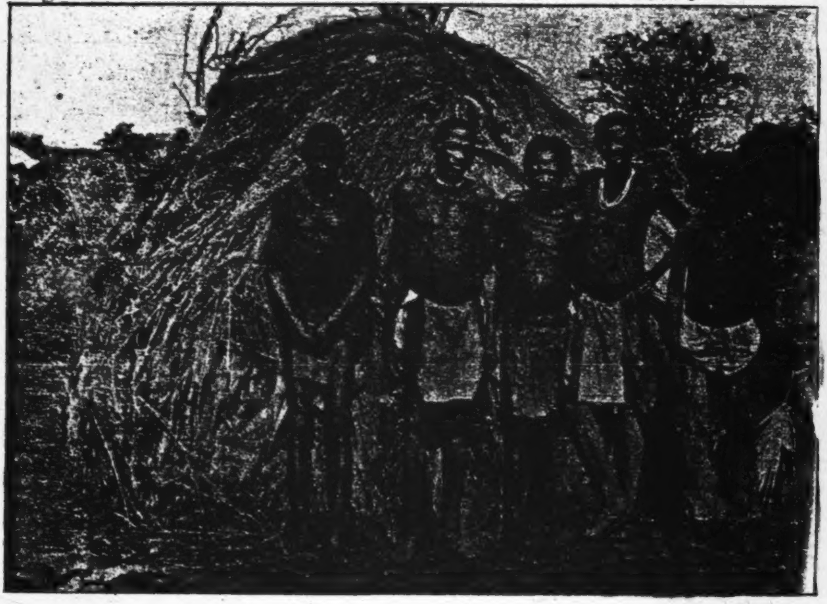


Fig. 1. Heikum Bushmen. Men.

141

/242 cont./

	Men	Women
8. Height of the tip of the Middle finger above the ground	59.0	56.8
9. Height of the ridge of the ilium above the ground	95.9	93.2
10. Height of the spine of the ilium above the ground	90.1	86.7
11. Height of the knee joint above the ground	43.3	41.2
12. Height of the inner ankle point above the ground	6.4	5.5
13. Height above the ground of the spinal process of the seventh neck vertebra	136.2	129.6
14. Width of the shoulders (acromion distance)	31.1	30.0
15. Distance between the two spines of the ilium	18.4	17.7
/243/		
16. Width between the two ridges of the ilium	21.9	20.9
17. Width between the trochanters	25.5	25.4
18. Circumference of the thorax at the level of the arm pits	76.1	69.3
19. Circumference of the waist	75.7	72.9
20. Circumference of the upper thigh	41.6	40.5
21. Circumference of the calf	28.6	26.5
22. Height of the crown of the head above the seat	77.0	75.6
23. Length of the skull	17.9	17.8
24. Width of the skull	13.6	13.1
[Fig. 2 appears here.]		
25. Diameter of the skull from the crown to the protuberance of the back of the head	16.3	15.7
26. Width between the projection of the two cheek bones	12.2	12.1
27. Width between the outer corners of the eyes	8.5	8.5

Heikum

● H1

/243 cont./

	Men	Women
28. Width between the inner corners of the eyes	3.6	3.5
29. Width of the mouth	4.7	4.5
30. Width between the two jaw angles	9.5	8.8
31. Distance from the chin to the root of the nose	9.8	9.6

[291]
[342]

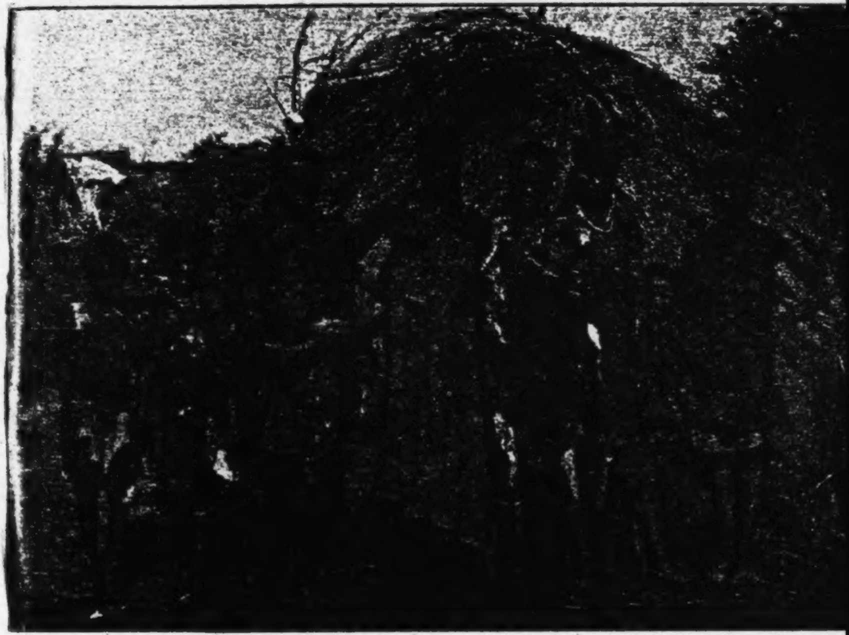


Fig. 2. Heikum Bushmen. Women.

	Men	Women
32. Distance from the chin to the hairline	16.6	15.9
33. Length of the nose	4.0	3.9
34. Width of the nose	4.1	3.8

/244/

	Men	Women
35. Distance from the chin to the tragus	13.3	12.3
36. Distance from the root of the nose to the tragus	11.7	11.3
37. Length of the thumb	5.1	5.1
38. Length of the middle finger	8.4	8.2
39. Width of the hand where the fingers join	6.8	6.5
40. Length of the foot	22.6	21.5

4: Werner--5 D-5 (ca. 1900) 1906 FX10 Bushmen FX10

Heikum

/244 cont./

141

	Men	Women
41. Width of the foot	8.4	7.7
42. Longitudinal curvature of the head	36.2	35.5
43. Horizontal circumference of the head	53.8	51.9
44. Vertical circumference of the head	28.9	28.3
45. Arm span	158.6	151.0

Proportional figures. Body length = 100.

I. Height of the navel above the ground	60.01	60.5
II. Height of the symphysis above the ground	52.9	53.1
III. Height of the crown of the head above the seat	49.54	50.5
IV. Height of the anterior superior ilium spine above the ground	58.02	57.92
V. Half the arm span	51.06	50.43
VI. Acromial width	20.03	20.04
VII. Width of the hip	16.42	16.91
VIII. Length of the arm	46.04	45.49
IX. Length of the upper arm	19.64	18.97
X. Length of the lower arm	15.45	15.45
XI. Length of the hand	10.95	11.09
XII. Length of the leg	55.12	54.91
XIII. Length of the upper leg	27.24	27.39
XIV. Length of the lower leg	23.76	23.85
XV. Height of the foot	4.12	3.67
XVI. Length of the foot	14.55	14.36
XVII. Circumference of the chest	49.0	46.3
XVIII. Circumference of the waist	48.68	48.69

/244 cont./

Indices

		Men	Women
● 141 I.	Skull index	76.3	73.5
II.	Average index of the skulls of all adults measured	74.77	
III.	Physiognomic face index	76.44	76.1
IV.	Physiognomic nose index	102.5	97.44

147 [146] The state of nutrition of those examined may in general be called inadequate, and the amount of fat slight. Even among younger individuals the skin is strikingly slack and can be grasped in wide folds. One has the impression that there is a connection between this slackness of the skin and the extreme fluctuation in the saturation of the tissues, which is the rule since the Bushmen experience frequent and long-lasting thirsts. The men assured me that they could march without water for four days in great heat, a statement which surely deserves to be credited.

142 The skin color of all those examined, with the exception of two in whose case racial mixture is a possibility, is a brown of medium tone shading over into yellow.

The palms of the hand and soles of the feet are a lighter color, but do not show such a striking contrast with the back of the hand as is the case among the Bantu /245/ Negroes. The skin of the chest and abdomen has a slightly darker coloration than that of the face. Scars are very common, especially on the chest and abdomen, and [513] usually stem from burns to which the Bushmen readily expose themselves by sitting and sleeping near the open fire. These scars have a lighter tinge than the surrounding skin and look almost pure yellow.

The iris of all those examined is deep brown in color.

Compared with Europeans, the hair growth of the Bushmen is very modest. It is confined almost entirely to the skull; beards are found only on a few men and even then they are sparse. Hair elsewhere on the body, including the arm pits and pubic hair, is practically nonexistent.

The color of the hair on the head is a deep black. The individual hairs grow to a length of about four centimeters for men and about six centimeters for women. The hair is fine and curled in a spiral. The curvature radius of the spiral amounts to about two

/249 cont./

To indicate affirmation the head is thrown back and the
201 eyebrows are raised.

Otherwise, the physiognomic changes of expression are essentially like those of Europeans. Nevertheless, it cannot be denied that the Bushman's facial mobility is considerably greater than that of a European, and even quite weak emotions are expressed by lively gestures.

If I may be permitted, I should like to emphasize here a
194 peculiarity of voice among the Bushmen; among the women especially
the voice seems to me abnormally high-pitched. In my
opinion the speech of a Heikum woman is pitched several notes
higher, on the average, than that of a Herero woman. Evidently
this peculiarity is connected with the smallness of the larynx of the
Heikum people.

The anthropometric figures presented above are doubtless much
● 141 smaller than comparable ones for the Herero, Nama, and
144 Bergdamara [Bergdama] living in the immediate vicinity of the
Bushmen. Nonetheless, as regards smallness, the Heikum certainly
do not approach the Pygmies of Central Africa. Whether further
ethnological and ethnographic investigations will uncover kindred
traits among these peoples remains to be shown by further research.
144 That the Bushmen represent an almost pure race is apparent from
the fact that the skin color is the same for almost all individuals,
and from the evident uniformity in the structure of the body, especially
of the face. In addition, the other native tribes of Southwest
Africa show a pronounced aversion to racial mixture with the
despised Bushmen.

I come now to some ethnological and ethnographic observations
535 which to me seem worthy of interest. I was especially
[171] interested in the dances of the Heikum, of which one, the //o
//au, shows no similarity to any other native dance with which I
have become acquainted in Southwest and East Africa.

The //o //au dance (in Kung language: //ooské) is a men's dance in which a series of dueling runs by the performing dancers are represented (Figs. 5 and 6). Six men, three to a side in opposing pairs, kneel in an area about three meters square, with a free space between the two rows. In the middle of this free area there is a pile of veld food. The men kneel down, hunched very

LORNA MARSHALL · *The !Kung Bushmen of the Kalahari Desert*[1]

INTRODUCTION

LOCATION · The Bushmen live in those parts 131 of the Kalahari Desert in southern Africa that lie in the British Bechuanaland Protectorate, in South West Africa, and in southeastern Angola. A few additional remnants of Bushman groups still exist in Northern Rhodesia and at Lake Chrissie in South Africa. In the past Bushmen had a much wider [172] distribution.[2]

Many Bushmen live among, and some work for, the Bantu-speaking 131 tribes in settlements where sufficient water resources have been developed to 644 support cattle, and some Bushmen work for white farmers in the Ghanzi 464 area of the Bechuanaland Protectorate and in South West Africa. However, 361 many still live in small, independent, nomadic groups, widely dispersed in the vast areas of the desert.

It is very difficult to arrive at a precise population count of the Bushmen, 161 but a recent estimate gathered from various contemporary sources (Tobias 1956) indicates that in 1955 there were 55,531 Bushmen.[3] These figures are higher than any previously propounded (cf. Schapera 1939) and come as a surprise to many.

The Bushmen are linked with the Hottentots, a southern African people 101 who resemble them physically and with whom they have linguistic affilia- 144 tions, but who are a pastoral people with a more complex social structure. [197] Bushmen and Hottentots together are called the *Khoisan* peoples, a coined term combining the Hottentots' term for themselves (*Khoi*) and their name for the Bushmen (*San*). The Khoisan peoples have been referred to as a distinct race (Murdock 1959: 8) or, as Howells puts it, "a major racial variety of man" (1959:306). The obscurity of their origins and racial affinities are in themselves subjects in which research continues and interesting postulations engage the attention of scientists in various fields.[4]

PHYSICAL FEATURES · The physical features of the Bushmen have drawn 142 much attention from anthropologists. Bushmen are of small stature (adult [141] males average approximately five feet, two inches) WITH YELLOWISH BROWN SKIN THAT BECOMES HEAVILY WRINKLED IN OLD AGE.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot

Bushmen FX 10

CHAPTER III

PHYSICAL CHARACTERS: DRESS AND DECORATION

PHYSICAL CHARACTERS OF THE BUSHMEN

IN appearance there are many features which readily distinguish the Bushmen from all the other inhabitants of South Africa save the Hottentots, and which may therefore be taken as characteristic of them. 144 These distinctive features are best seen in the Bushmen south of the Molopo River, who may be regarded as purest in type. The tribes further north have all been affected to some extent by racial intermixture with other peoples, and tend consequently to vary in certain respects. But they are fundamentally of the same racial stock.[1]

The most conspicuous feature in the appearance of the Southern Bushmen is their small stature. 141 Accurate measurements are unfortunately very scanty. The most reliable figures are those given by Fritsch, who found that the average height of 6 men was 144·4 cm., and of 5 women 144·8 cm.[2] Von Luschan, who claimed to have measured 41 racially pure individuals, did not publish his figures in detail, but states that the average stature of both men and women is about 140 cm., and the maximum for pure-blooded people 146 cm.[3] Older but less trustworthy measurements give an even lower average. It may safely be taken therefore that the average stature is not more than 145 cm., but whether it is the same in both men and women must, in the absence of adequate data, be regarded as questionable.

North of the Molopo the stature increases. No figures are available

---

[1] The best descriptions of the physical characters of the Bushmen are to be found in: G. Fritsch, *Die Eingeborenen Süd-Afrika's*, 1872, pp. 396–410; R. Virchow, "Buschmänner," *Verh. Berl. Ges. Anthrop.*, 1886, 221–39; H. Werner, "Beobachtungen über die Heikum- und Kungbuschleute," *Z. Ethn.*, xxxviii (1906), 241–68; R. Pöch, "Die Stellung der Buschmannrasse unter den übrigen Menschenrassen," *KorrBl. deuts. Ges. Anthrop.*, xlii (1911), 75–80; F. Seiner, "Beobachtungen und Messungen an Buschleute," *Z. Ethn.*, xliv (1912), 275–88; *idem*, "Beobachtungen an den Bastard-Buschleuten der Nord-Kalahari," *Mitt. anthrop. Ges. Wien*, xliii (1913), 311–24; *idem*, "Ergebnisse einer Bereisung der Omaheke," *Mitt. deuts. Schutzgeb.*, xxvi (1913), 225–316; F. von Luschan, "Pygmäen und Buschmänner," *Z. Ethn.*, xlvi (1914), 154–76; R. Martin, "Zur Anthropologie der Buschmänner," in E. Kaiser, *Die Diamantenwüste Südwestafrikas*, 1926, vol. ii, pp. 436–90 and bibliography; L. Schultze, *Zur Kenntnis des Körpers der Hottentotten und Buschmänner*, 1928, pp. 186–211 and bibliography.

[2] Op. cit., 397.

[3] Op. cit., 155.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot
Bushmen FX 10

141 for the Bushmen immediately north of this river, but Pöch, who measured some of them, says that on the whole they are taller than the Southern tribes.[1] Among the Auen further north Kaufmann found that the average height of the men is 151·5 cm. (min. 147, max. 162) and of the women 145·5 cm. (min. 138, max. 153). He does not state the number of measurements taken.[2] For the Naron Schinz gives 157 cm. as the average stature of 50 individuals, with a minimum of 149 cm. and a maximum of 167; he does not mention their sex, but from the context it is clear that they were all males.[3] Mr. Drury, of the South African Museum, measured some members of this tribe at Sandfontein, and his figures[4] give an average of 157 cm. for 16 men, which agrees exactly with that obtained by Schinz, and of 150·1 cm. for 13 women.

Fuller data are available for the Kung and Heikum, of whom a large number were measured by Seiner. Among the Kung the average stature of 74 men measured by him was 156·4 cm. (min. 142·2, max. 171·3) and of 18 women 148·2 cm. (min. 138·2, max. 158·3), while in the case of the Heikum he found the average stature of 15 men to be 152·5 cm. (min. 148·6, max. 168·3).[5] Werner's figures for the Heikum are slightly higher; the average height of the 14 men measured by him was 155·3 cm., and of the 17 women 149·7 cm.[6] Further north, among the !O Kung of Angola, the stature increases slightly. Of the 22 men measured by Miss Bleek the tallest was 170 cm. in height, the shortest 145·5 cm., and the average stature 159·3 cm., while among the same number of women the tallest was 161·3 cm. in height, the shortest 135, and the average 148·8 cm.[7]

It will be noticed that in these tribes there is an appreciable difference in height between the two sexes. The average for men ranges between about 152 and 159 cm., and that for women between about 145 and 150 cm. The lowest averages are found among the Auen to the south, and the highest among the !O Kung, who are the most northerly of these tribes.

No detailed measurements have been recorded for the Bushmen of the Eastern Kalahari, but Dornan says of the Hiechware that they are " taller than the Cape Bushmen and quite as tall as the Bechuanas.

---

[1] " Reisen im Innern Südafrikas zum Studium der Buschmänner," *Z. Ethn.*, xlii (1910), 359.
[2] " Die Auin," *Mitt. deuts. Schutzgeb.*, xxiii (1910), 136.
[3] *Deutsch-Südwest-Afrika*, 1891, p. 393.
[4] Obtained by courtesy of the South African Museum.
[5] *Z. Ethn.*, xliv (1912), 277. [6] Op. cit., 242.
[7] " Bushmen of Central Angola," *Bantu Studies*, iii (1928), 108.

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot

Bushmen FX10

Such individuals as I have measured ranged from 5 ft. 2 in. [157·5 cm.] up to 5 ft. 9 in. [175·3 cm.]. A few were below or above these figures, but the average height may be taken at 5 ft. 5 in." [168 cm.].[1] Elsewhere he adds that "the women are usually considerably shorter than the men; those that I have measured ranged from 4 ft. $9\frac{3}{4}$ in. [146·8 cm.] up to 5 ft. $2\frac{1}{2}$ in." [158·8 cm.], and he gives 5 ft. 2 in. [157·5 cm.] as their average height.[2] The Hukwe and the Galikwe apparently attain to a still greater stature. Both Livingstone and Chapman speak of individuals fully 6 ft. tall (183 cm.), and the latter places the average stature of the "MaDenassena", i.e. Galikwe, at 5 ft. 10 in. (177·8 cm.).[3] According to Seiner the members of this tribe range in stature between 162 and 184 cm.,[4] and Wilhelm says of the Hukwe that statures of between 170 and 190 cm. must be regarded as normal.[5] 141

These figures show that on the whole the Bushmen north of the Molopo are distinctly taller than their Southern relatives, and it is evident that the further north and east we go the taller do they become. It has been suggested by several writers that this increase in stature is due to better conditions of subsistence. It is hardly justifiable, however, to assume that the Bushmen living within or on the borders of the Kalahari Desert could obtain better nourishment than those in the Cape, where water and food supply are on the whole much more favourable. It seems rather that we must look upon the pygmy stature of the Southern Bushmen as a true racial characteristic, and that the increased stature of the Northern tribes must be attributed to the influence of racial intermixture with other and taller peoples. This conclusion is borne out by several other features, of which the most evident perhaps is skin coloration. 144

In the Southern Bushmen the skin colour varies from light yellow to brownish-yellow. In the tribes just north of the Molopo some families are of the same colour, while others have darker tinges of varying shades—a patently new mixture. The Auen, Naron, and Kung have a fairly constant reddish-brown colour, although individuals incline more to yellow or to black. Among the !O Kung, according to Miss Bleek, some individuals are blackish-yellow, others reddish-brown or copper colour, others again are almost black, although 142 144

---

[1] "The Tati Bushmen (Masarwas)," *J.R. Anthrop. Inst.*, xlvii (1917), 43.

[2] *Pygmies and Bushmen of the Kalahari*, 1925, p. 79.

[3] D. Livingstone, *Missionary Travels and Researches in S. Africa*, 1857, p. 165; J. Chapman, *Travels in the Interior of S. Africa*, 1868, vol. i, p. 46.

[4] *Mitt. deuts. Schutzgeb.*, xxvi (1913), 299.

[5] *Z. EingebSpr.*, xii (1922), 300.

142 lighter in shade than the Bantu of the same region; and she adds
144 that in Bushman-Bantu crosses the first generation of children may be either yellowish or blackish, while later generations, where both parents have a little Bantu blood, show the reddish-brown colour which distinguishes these Northern Bushmen from the Southern.[1] The colour of the Hiechware in the Eastern Kalahari, says Dornan, "is usually darker than in the typical Bushman, but even it is not constant. I have met individuals of the brownish-yellow colour of the Southern Bushmen, and even amongst these there were individuals of a very dark type."[2] The same range of variation is found among the North-Eastern tribes, where, however, the dominant shade is a dark chocolate colour approaching that of the Bantu.

141 It appears moreover that the light-coloured individuals in the tribes
just north of the Molopo are comparatively short, while the darker
142 individuals are all of greater height. The same is probably true of
144 the Hiechware, while Kaufmann writes of the Auen that the band living at Gam, in the northernmost part of the tribal territory, consists almost entirely of proportionately tall individuals, whose colour is darker than that of the rest of the tribe.[3] If these observations are accurate, and they need to be tested by statistical investigation, they would provide an excellent indication of the lines along which the still necessary detailed study may be made of the variations produced in the physical characters of the Bushmen by intermixture with other peoples. In any case, if we bear in mind the advance of the Bantu peoples from the north-east and the extent to which the different Bushman tribes have therefore been exposed to contact with them, it need occasion no surprise that the most northern and eastern tribes show on the whole the greatest stature and darkest colour.

Seiner, indeed, definitely terms the Bushman tribes of the Northern Kalahari "Bastard-Buschleute". His general remarks on their characteristics may be quoted as a concise statement of the extent to which mixture with other peoples has taken place in this region. "Das Gebiet der Bastard-Buschleute," he says,[4] "liegt ganz in der südlichen Zone der Nord-Kalahari, zwischen dem südangolesischen Hochland und dem Kaokoveld einerseits, sowie dem Matabeleland und Nordost-Rhodesia anderseits . . . Dieses Gebiet wird durch den Okawango in einen grossen westlichen und in einen kleineren

---

[1] "Buschmänner von Angola," *Archiv Anthrop.*, N.F. xxi (1927), 48.

[2] *J.R. Anthrop. Inst.*, xlvii (1917), 42.

[3] Op. cit., 316.

[4] *Mitt. deuts. Schutzgeb.*, xxvi (1913), 283–4.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot
Bushmen FX10

östlichen Teil geschieden. Während nun in der westlichen Bastard- 141
zone, sowie in der Süd- und Mittel-Kalahari die Buschmannstämme
mehr von Hottentotten als von Negern durchdrungen sind, ist die 142
Zersetzung der Buschmannrasse in der östlichen Zone, dem 144
Okawango-Sambesi-Gebiet, häuptsächlich auf die Vermischung mit
Bantu zurückzuführen. Der eigentliche Rassentypus ist wohl sehr verwischt, kommt aber in der Mehrzahl der Fälle doch so stark zum Ausdruck, dass man diese Bastarde unbedingt zu den Buschleuten rechnen muss. Die Individuen neigen in Physiognomie und Wuchs bald mehr dem Neger, bald mehr dem Buschmann zu. Zwischen dem eckigen Buschmannkopf und dem runden Schädel des Negers sind die verschiedensten Verbindungen vorhanden, und von der fahlgelben bzw. rötlichgelben Hautfarbe der Buschleute bis zur rötlichschwarzbraunen Farbe der Neger zeigen sich zahlreiche Übergänge. Bereits Livingstone berichtet, dass die nördlich des Ngamisees, also in der Nord-Kalahari, lebenden Buschleute grösser, kräftiger und dunkelfarbiger seien als jene der südlichen Steppen. Tatsächlich sind in der östlichen Bastardzone Menschen von 170 cm. häufig, und diese Beobachtung war auch der Hauptgrund, dieses Menschengruppe nicht ohne weiteres als Buschleute anzuerkennen, da die Variationsbreite der Körpergrösse der letzteren zwischen 140 bis 160 cm. liegt. Am Okawango, an dem die westlichen Bastardzone beginnt, sind Individuen von 170 cm. Körperhöhe seltener und ist der Prozentsatz an ausgeprägten Buschmanntypen grösser, welcher Umstand vielleicht einen stärkeren Neigung zu Rückschlägen zugeschrieben werden könnte."

It may be taken therefore, although only stature and skin colour have so far been touched upon as the most apparent indications of variation, that the Southern Bushmen do actually represent the purest Bushman type, while the Northern tribes all show some degree of intermixture with other peoples. They are, however, of undoubted Bushman stock, and although in the following brief survey of the principal racial characters of the Bushmen the Southern tribes have been taken as the standard type, it must be understood that save where otherwise indicated the description applies equally to all the Bushmen.

The skin itself of the Bushmen is very dry and lean, with little 142
adipose tissue. It readily forms into deep wrinkles and folds, especially on the face, even in fairly young and well-nourished people. In the Northern tribes, and chiefly in the "Bastard" Bushmen, the

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot

Bushmen FX10

142 tendency to fold is not so excessive, wrinkled features being comparatively rare in young people. There is very little hair on the body. The greater part of its surface seems completely bare; the arm-pits have only a weak show of hair, and even in the pubic regions the growth is very sparse. It is only on the scalp and occasionally on the eyebrows that the hair is at all thick. Rudimentary and irregular traces of beard and moustache are sometimes seen in the men, but rarely grow to any length or thickness. The hair is black in colour, and becomes grey only in very old people; baldness is extremely rare, even in advanced age. The hair is commonly very short and fine, but occasionally may be fairly long on the head of a woman. Such occurrences, however, seem to be rare, and it cannot be said that length of hair is a secondary sexual characteristic in the Bushmen. The hairs are tightly coiled into small spiral knots (not inappropriately referred to in popular speech as "peppercorns") which on the scalp appear to be separated by bare spots, but actually the hair follicles are distributed as in other races. In section the hair presents an elliptical contour.

● 141 142 The head in the Southern Bushmen is small and relatively broad (mesocephalic), and markedly low in the crown (platycephalic). The face is broad and flat, somewhat rectangular in shape, and generally orthognathous or only slightly prognathous. The forehead is low and bulging, the cheek-bones fairly prominent, and the lower jaw relatively broad. In the Northern tribes there is a slight but distinct tendency for the head to be narrower and higher, the face appears longer and more oval in shape, and a fair degree of prognathism is often noticed. [144] Among the Kung, and particularly among the !O Kung, one sometimes finds long narrow faces with aquiline noses and almost Semitic features, hinting at some new racial component which still remains to be determined; but even in these tribes the small rectangular Bushman facial type crops up in a number of faces with more or less negroid features.

142 The nose is generally low and very broad, especially at the root. As seen in profile, it is short and concave, but is set well back and often appears quite flat. The wings are broad, and the nostrils, which are directed forwards, have a curious splayed-out appearance. The orbits are low and the eyes set rather wide apart. The opening between the eyelids is very narrow, and often appears slightly oblique, owing to the remarkable fullness of the upper lid and the fact that a prominent fold of skin curves round from above it to the side of

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot

Bushmen FX10

142 [141] arm is the shortest on record. In the Northern tribes measured by Seiner and Werner the index of span-breadth to stature is just over 100, whereas in Europeans it is about 103 and in the Central African Pygmies as much as 106. The hands and feet are very small and narrow in proportion, the fingers and toes short and stumpy.

The outline of the body is sunken and angular, and all projections are strongly marked. The shoulders are angular, and the shoulder-blades and collar-bones stand out very strongly, owing to the thinness of the muscles and the lack of adipose tissue in the skin. The chest as a rule is fairly well developed, though its appearance is sometimes vitiated by the variable conditions of the abdomen, and especially [262] by the frequent occurrence of a pendulous belly, chiefly in young people, as the result of unfavourable diet, unrestricted gorging, and the frequent alternation between starvation and plenty. Where the food supply is at all regular, this abnormal protuberance is rarely seen. The buttocks are small but often seem prominent owing to the curious inward curvature of the spine in the lumbo-sacral region. [147] The penis, even when not in a state of erection, often extends horizontally in a semi-erect condition. This remarkable feature, portrayed also in many of the Bushman paintings of human beings, has been regarded by some recent writers, such as von Luschan and Seiner, as a special racial characteristic of the Bushmen.

The Northern Bushmen do not differ very markedly in build from their Southern relatives, although the "Bastard" tribes are on the whole better developed physically. They have stronger limbs, with arms and legs slightly longer in proportion; the shoulders are more rounded, and the chest seen to better advantage. The protuberant abdomen and the marked hollow of the back due to the lumbo-sacral curvature are present in most individuals. The hands and feet are [147 144] slightly bigger, the fingers and toes longer. The horizontal projection of the penis was noted by Seiner in about three-fifths of the men he examined. He states that with admixture of Bantu blood it begins to droop, so that there does appear to be some racial significance attached to this feature. Its occurrence has not yet been physiologically explained, although Seiner suggests that it may be due to a strong development of the *Ligamentum suspensorium penis*.

142 147 The female body, like that of the male, is generally slender, the limbs slight, the hands and feet small. In mature women, however, there is often found a strong accumulation of fat on the thighs and especially on the buttocks, a character known as steatopygia, which

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot FX13

Bushmen FX10

may occasionally be seen in the men also. Strongly-marked steatopygia is not very frequent, however, and in spite of the many statements to the contrary it cannot be regarded as a racial peculiarity. Fritsch, indeed, and other acute observers even look upon the occurrence of steatopygia in Bushwomen as indicating the presence of Hottentot blood. However this may be, it is certain that steatopygia is not as prominent a feature of Bushwomen as is sometimes asserted. In the Northern Bushwomen it seldom occurs. B 142 147

The breasts in young girls are small and conical, with well-marked nipples; after puberty they become somewhat pendulous, and in the older women who have given birth to several children they hang very low and are often in an extremely shrivelled condition. The genital organs are notable for a frequent hypertrophy of the labia minora—the so-called "Hottentot apron"—which are sometimes considerably elongated, and may project as much as 10 cm. beyond the rima pudendi. This appears to be a physiological feature, and not artificially produced by manipulation, as has sometimes been suggested. It is found in the Northern tribes also, but is not peculiar to Bushwomen, since it is common among the Hottentots as well as among various East African peoples.

It will be seen from this description that all the Bushmen are on the whole fundamentally of the same physical type, although the Northern tribes vary in certain features from the Southern. It is impossible to draw any clear-cut line of distinction between the different tribes. There is rather a continuous gradation of characters, the type gradually becoming more impure the further north and east we go. The general tendency is for the Northern Bushmen to be taller, often considerably taller, than their Southern relatives; they have a darker colour, and better muscular development, relatively narrower and higher heads and faces, and show certain negroid characteristics in their facial features and bodily build. These divergent tendencies, it is evident, are the result of racial intermixture with other peoples, principally Bantu negroids; and the process of intermixture is still continuing. Seiner's designation of these Northern tribes as "Bastard Bushmen" is well founded, and there can be no doubt that they are all by now to some extent at least a hybrid people as far as physical characters are concerned. B 142 141

HOTTENTOTS

H 141 142

The Hottentots resemble the Southern Bushmen very closely in appearance. It is only in stature and shape of the head that significant

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot FX13

Bushmen FX 10

H 142 grey before about the sixtieth year, but baldness is rare, even in extreme old age.

B H 141 The head on the whole is long, narrow, and low—appreciably longer than in the Cape Bushmen, and slightly narrower and higher as well. This is best illustrated in the figures given by Schultze. In the 73 Hottentot (Nama) men measured by him, the mean maximum length of the head was 192 mm., the breadth 140 mm., and the height 116 mm., while in the 14 Bushmen (mostly from the Southern Kalahari) whose measurements he also records the corresponding dimensions were 187 mm., 142 mm., and 113 mm. The mean cephalic index of the Hottentots was 72·9 (max. 78·5, min. 67·1), and that of the Bushmen 75·8 (max. 78·2, min. 72·9); and whereas 57 per cent of the Bushmen were mesocephalic, the remaining 43 per cent being dolicocephalic, only 15 per cent of the Hottentots were mesocephalic, the remaining 85 per cent being dolicocephalic and hyperdolicocephalic. The length-height (altitudinal) index was the same in both cases, 60·3 (orthocephalic); but the lower height of the Bushman head is here neutralized by its smaller length. In the breadth-height index, on the other hand, the difference in the shape of the head is again apparent. The average in Hottentots is 82·8, that in Bushmen 79·5. It was found by Schultze that the form of the head in the Hottentots tends to alter in that, with higher stature, the head on the whole becomes longer and not broader (i.e. more dolicocephalic), and also higher (i.e. more orthocephalic). It will be noticed that the variations in shape of the Hottentot head as a whole from that of the Bushmen lie in the same direction. They may therefore possibly be correlated with the increased stature of the Hottentots as compared with the Cape Bushmen.

The face in the Hottentots is low and flat, but slightly longer and narrower in proportion than that of the Bushmen, and somewhat different in appearance. The forehead is low and narrow, but the cheekbones are high and prominent, and with the relatively narrower lower jaw and pointed, retreating chin give a triangular outline to the face. The nose is short and extremely broad, although slightly narrower in proportion than the Bushman nose: the nasal index is 100, while that of the Bushmen is 115. Both, however, are markedly platyrrhine. The bridge is very low, the nostrils wide and directed forwards. The eyes, especially in young people, have the same peculiar fold of the upper eyelid and very narrow opening which characterize the eyes of the Bushmen. The iris is also dark brown. The ear is

H 142

somewhat larger than in Bushmen, and while it does not display the same well-marked peculiarities as the Southern Bushman ear is, on the whole, strongly reminiscent of it, especially in shape and in the well-rolled helix. There is generally a moderate lobe, although occasionally the ear is lobeless, as in pure-blooded Bushmen. The lips are thin, the mucous membrane everted, and there is the same convexity of the upper lip as in the Bushmen. The lips project considerably, the lower slightly beyond the upper, giving the mouth a snout-like appearance, which may also be noticed in some of the Bushmen. This projection of the lips easily conveys the impression of great prognathism, owing to the flatness of the nose and the retreating chin; but actually the degree of prognathism is slight, although greater than in the Cape Bushmen.

B H [147]

In build there is also a great similarity between Hottentots and Bushmen. The bodies of the Hottentots are slender, and the limbs very slight; good muscular development is rare, the muscles generally being thin and cord-like. The legs are rather long in proportion to the trunk, while the arms, again, are short; the hands and feet are small and narrow, like those of the Bushmen. The hips project but little, and the protuberant belly seen in the Southern Bushmen does not occur to the same extent, although it is also often found in small children. The buttocks are small, but may appear prominent owing to the strong inclination of the pelvis and the hollow back, features already noted in the Bushmen as well. The horizontal position of the penis found in pure-blooded Bushmen is occasionally seen in the Hottentots, but is comparatively rare.

B H 142 147

The breasts of the girls, like those of the Bushmen girls, are proportionately small and conical, with projecting nipples; but in mature women they become quite limp, and hang flat against the body. Steatopygia is far more common and more pronounced than in Bushwomen; it is found in the women of all the Hottentot tribes, although it tends to disappear where there is any great degree of intermixture with other peoples. Elongation of the labia minora is also very often found as a physiological feature. Although this cannot be regarded as a racial peculiarity, the fact is noteworthy that it occurs far more frequently in Khoisan women than in the women of any of the other South African peoples.

B H 144 141 142

RELATIONSHIP BETWEEN BUSHMEN AND HOTTENTOTS

The Hottentots and Bushmen are so much alike in physical characters and so distinct in appearance from the other inhabitants of

B H 144 141 142

South Africa that we cannot but look upon these two peoples as very closely allied in race. Both the Cape Bushmen and the Hottentots have a brownish-yellow skin colour; black, spiral, sparsely-distributed hair; low heads and faces, broad flat noses with low bridges, widely separated eyes with narrow openings and a strong development of the upper lid; steatopygia and elongation of the labia minora. The Hottentots, however, are taller; their heads are larger in length and height, and prevalently dolicocephalic; their faces slightly longer and more prognathous, and their noses slightly narrower; while steatopygia is also more common.

Now it has already been shown that the more northerly Bushmen are taller and darker than the Cape Bushmen, and that their heads tend to be longer and higher and proportionately narrower, while they have also a higher degree of prognathism. These divergencies, we have seen, are obviously the result of intermixture with other peoples, principally of negroid (Bantu) stock. In the Hottentots the differences from the Cape Bushmen in stature and the shape of the head are of the same nature as those found in the Northern Bushmen. On the other hand, they have the same skin colour as the Cape Bushmen, and certain peculiarities, such as steatopygia, which are more pronounced in them than even in the Bushmen, and which seldom occur in the Northern Bushmen.

B H 144 141

In view of the comparative evidence afforded by the Northern Bushmen, it seems that we must look upon the Hottentots also as people of Bushman stock who have been influenced in physical characters by intermixture with some other racial group. The prevalent theory, as already mentioned, is that this new component was derived from the light-skinned Hamitic stock. Shrubsall, however, working upon skeletal material alone, maintains that this theory is untenable, and that the new element in the composition of the Hottentots must have been of Bantu stock. "The appearance of the Hottentot skulls," he says, "in no way suggests any marked intermediate characters between those of Bushmen and of any more Hamitic race, while in the features in which they differ from the Bush crania they certainly resemble negroes . . . When the distribution of the various cranial and facial indices is compared it may be seen that the Hottentot in almost every case is intermediate between the Bushmen and the Bantu negroes . . . It can be shown that while the Hottentot measurements are in some respects intermediate between those of Bushmen and of Hamites, they are more nearly intermediate between the

Bushmen FX10

B
H
144
141

Bushmen and the Bantu, and where they show this least they resemble the Sudanese negro more than the Hamite."[1]

The fact that the Northern Bushmen, who have unquestionably been affected by racial intermixture with the Bantu, tend to diverge from the Cape Bushmen in the same cranial features as do the Hottentots might seem to support this view. On the other hand, these Northern Bushmen have also acquired a darker skin colour, while the Hottentots are as light in colour as the Cape Bushmen; and, again, as von Luschan has shown, occasionally one finds facial features in the Hottentots which are strongly reminiscent of the Hamitic type, and can only be regarded as reversions to it (cf. Plate V).[2] Schultze also comments upon the same fact, and shows that in several of the men whose physical characters he investigated statures well above the mean were combined with long faces and narrow noses, features indicative of Hamitic influence.[3] Moreover, although such evidence cannot be adduced as conclusive in a discussion of purely racial origins, it is surely not without some bearing upon this question that the languages of the Hottentots present affinities to those of the Hamitic language family, and that their cattle and sheep are of the breeds associated in Africa with Hamitic culture.

B
H
142
144

The craniological evidence is opposed to the conclusion that the Hottentots are a true Bushman-Hamitic cross without a negro element; but the other factors noted suggest that some Hamitic element at least must have entered into the composition of the Hottentots. In this connection it must be mentioned that the Bantu themselves are negroes who have been affected to some extent by Hamitic admixture. Consequently the resemblance in cranial characters between the Hottentots and the Northern Bushmen need not necessarily argue against the presence of Hamitic blood in the former. It seems reasonable, therefore, to assume that the Hottentots may represent a mixture of people of Bushman stock with both Hamites and negroes, or perhaps with an earlier mixture of the two latter stocks having a predominantly Hamitic culture. The fact that the racially pure Hottentots now vary but slightly amongst themselves suggests that this intermixture which gave rise to them is of very long standing, and hence probably originated before they came into South Africa.

---

[1] F. C. Shrubsall, "The Pygmy and Negro Races of Africa," *Lancet*, 1908 (January–June), p. 985.

[2] "Hamitische Typen," in C. Meinhof, *Die Sprachen der Hamiten*, 1912, pp. 252–3.

[3] Op. cit., p. 213.

142

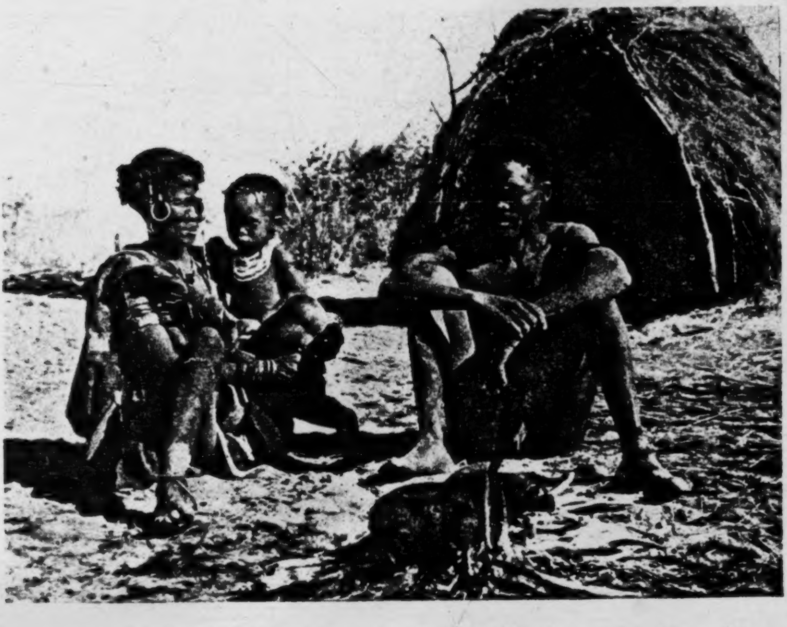
142 DESCRIPTIVE SOMATOLOGY--color of skin, hair, and eyes; form, length, and distribution of hair; musculature; secondary sexual characteristics; somatotype data; etc.

1:Marshall E-5 (1952-1953) 1959 FX10 Bushmen FX10
Kung

482

1. Women return in the evening after the day's digging and gathering of wild roots and berries

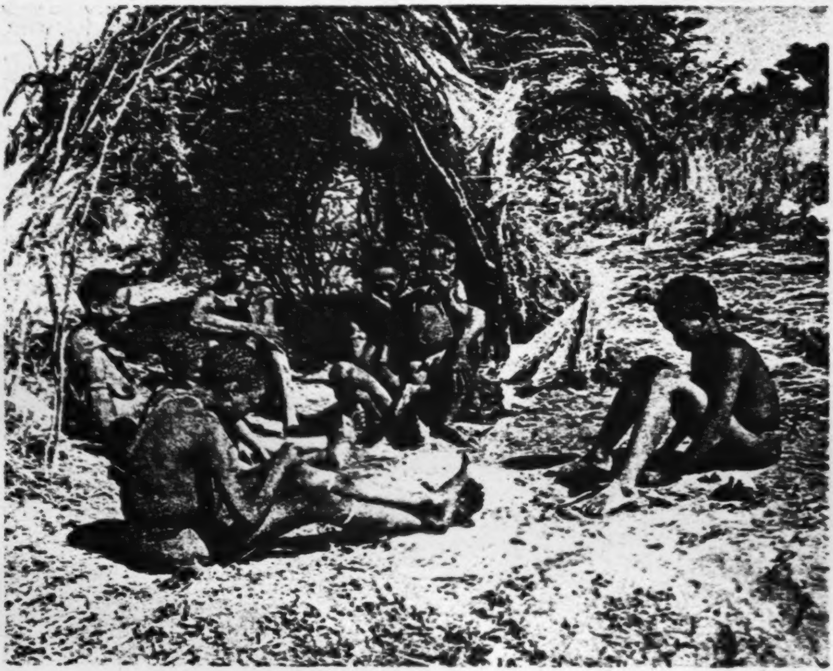
142 ●
291
301
342
516



2. A husband, wife, and their son at their family fire cooking their supper of two wild roots which the wife brought. Her genital apron is a fine one ornamented with beads

[p. 348-A]

142
342
516



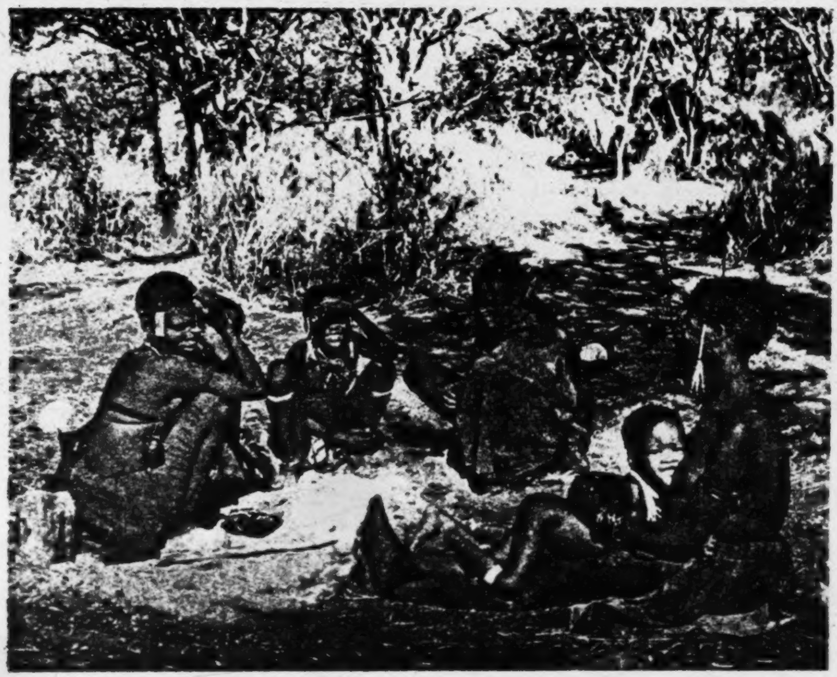
142
301
302

3. Gau (centre) with his two wives in front of their scherm. The younger second wife, Khuan//a, holds her son in her arms. The three boys in front are the sons of Be, the first wife, at Gau's right

4. /Ti/kay in the best of moods

1:Marshall E-5 (1952-1953) 1959 FX10 Bushmen FX10
Kung

142 ●
291
301
516



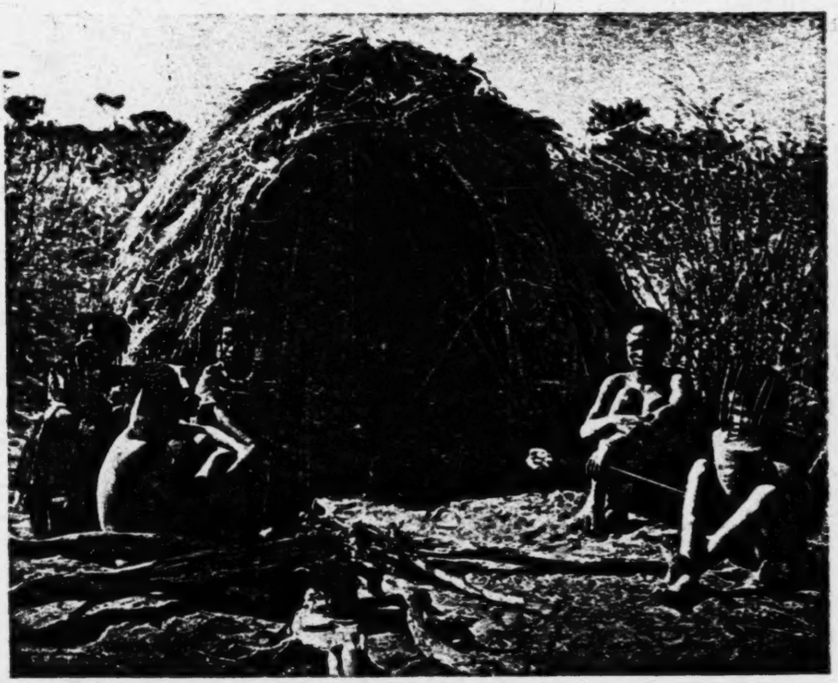
142
302

5. The two wives of /Ti/kay sit at their family fire, /Naoka the elder sister to the left, /Nai the younger, with her son on her lap, to the right. Between them are Bau, /Naoka's daughter, already married for two years, and /Goishay, their old mother

6. /Nai, the young bride, the morning after the wedding, showing the design painted on her face by her mother with powdered red stone and fat

[p. 348-C]

342
516



142
301

7. The wedding scherm, the morning after the wedding. To the right are /Gunda, the bridegroom, and one of the boys who attended him, playing the //guashi. /Nai is to the left with her two attendants beside her. Tsamgao has gone to sit by the girls instead of remaining on the men's side

8. ≠Toma the leader

logical father, as well as his mother's husband, should do something nice for him. 159
Perhaps when he receives his first assegai his begetter will give it, for that is a very 848
proud thing—but we do not know what the future holds for these people or where
they will be by then.

The dominance of men

Wives are much desired by the young men, who usually wait for years for their 562
infant fiancées to grow up, and by men who want second wives, and by widowers. [581]
/Kung women are not only precious as mates, they are the food-gatherers and supply [222]
more of the daily food than the men do. Hunting[1] is very arduous in the Kalahari and [462]
the hunters succeed in bringing a big meat animal to the werf only about once or
twice a month. Meanwhile women have dug roots and gathered berries and the other [224]
wild plant foods to feed their families every day. /Kung women in their two roles
make a very great contribution.

In /Kung society, however, the magnitude of their contribution does not make women dominant. There are factors which bring the men forward clearly into dominance and leadership.

The primary factor is undoubtedly strength. /Kung men are small and slender, [142]
147
but they are wiry and vigorous. With their strength they carry and protect the very
life of their people. When they swing their weapons and implements and their small children on to their shoulders and stride out in front of the women, the image seems to reveal, as vividly as if a great artist had painted it, how the laden following women are borne up by the strength of their men and take heart from them.

Another factor which brings men clearly forward is the character of hunting and 462
its reward. Women bring the daily food, but there is only drudgery in digging and 562
picking in the hot sun and trudging back in the early evening to the werf with heavy [222]
roots and berries and babies all sagging in the pouches of their karosses, a small dead
tree or two on one shoulder for the night fire, possibly another child astride the other
shoulder. Many of the vegetable foods, furthermore, are rather tasteless and harsh [262]
and are not very satisfying. There is nothing splendid about returning with vegetables and wood. The return of the hunters is vastly different. The intense craving [262]
for meat, the anxiety that goes with the hunt, the deep excitement of the kill, finally
the eating and the satisfaction reach to the very core of the people, engaging power- [224]
ful emotions. Once, when an eland had been killed and the hunters were sighted
with the meat on their backs, moving in a dark, lumpy, bobbing line in the golden [152]
grass, we heard the sound of voices in the werf rising in volume and pitch like the
hum of excited bees. Some people ran toward the hunters, others crowded together at
the edge of the werf, some danced up and down, the children squealed and ran about,
the boys grappled and tussled together. The motion and sound had the effect of
a vibration. Another time a young man who was said to be the best hunter in
the region (/Qui Hunter we called him, his people called him Short /Qui), had been 462
charged by a magnificent cock ostrich on a big open pan where there was no refuge. 562
He knelt facing the creature till it was within close range and shot an arrow straight 224

---

[1] John Marshall has described /Kung hunting in his film, *The Hunters*, Peabody Museum Film Study Center, Harvard University, and in 'Man as Hunter', *Natural History*, the magazine of the American Museum of Natural History, New York, vol. lxvii, No. 6, June, and No. 7, August, 1958. [113]

/136 cont./

142 The tribe at Gam in particular consists almost exclusively of comparatively large people who, even after a thorough washing, display a decidedly darker coloration than the other Auin.

162 According to my observations, there is something like one to two women for each man, and from two to three children for each woman.

162 In this connection I would like to mention that newborn chil-
847 dren are always killed if the mother is still nursing a child, which
continues until about the third year of life. The killing is done
[862] immediately after birth by the mother, who buries the newborn
child alive. The father has nothing to do with it. Since marital
[853] intercourse continues during the nursing period and since this
period lasts for about three years, it follows that approximately
every third child is reared while those born in the meantime are
killed without exception. This might well be a principal factor
in the unquestionable decline in the population.

Since each woman has her special windscreen (hut), the
592 man lives alternately with one and then another of his wives;
595 the latter in turn have their children living with them, and it
therefore follows that about three to four persons occupy each hut.

221 The size of the settlements (villages) is quite indefinite and
361 changes according to the circumstances. During the dry season a settlement is formed usually by one to two families, whereas during the period of ample veld food, in other words, toward the end and shortly after /137/ [map appears here] /138/ the rainy season, sometimes up to 30 families join together to form a "village." In April, 1908, about 400 men were living in a settlement near Sidonitzaub. If their dependents are included, one will arrive at a figure of at least 1,000 persons.

[701] All the men are armed warriors.

As has already been noted, one can clearly observe a decrease
161 in the population, which, judging by its rapid progress, can be
designated as swiftly approaching extinction. Aside from infanti-
[136] cide and malaria, the decrease of wild game may also be given
as a reason for the population decline, since this decrease makes
food more difficult to obtain. Older Auin state that in former
times attacks by lions caused heavy losses.

[Text continues on page 7]

/140 cont./

301 Earrings of Molentza chain; necklaces of glass beads. Rings on arms, wrists, and legs as among the men.

[756] The "Bushman doctor" wears special ornaments that other people are not permitted to wear. Unfortunately, I was not able to obtain any of these ornaments.

[882] Girls, it is said, do not start wearing ornaments until after their first menses.

[796] All the ornaments are worn for dances and ceremonies. The headdress of the women in Photograph 20 is worn only on special festive occasions.

302 [756] [301] The "doctor" has his head shaved smooth. I did not notice a special hairdress. The men frequently stick individual loose ostrich feathers in the hair, while the women like to braid brass or iron beads into the hair. In addition, the women use a kind of pomade made of various pulverized plant parts which are combined with fat from antelope skin.

Men sometimes cut their head-hair with a knife or a piece of glass.

There is no differentiation in hair style between girls and married women.

[386] The hair is frequently dyed with a mixture of fat and red clay. I am uncertain, however, whether or not this is a means of making the hair fall out in places. On the other hand, in that case there would probably have to be another ingredient /141/ in this mixture that I was unable to discover.

In case a beard is present, which does not occur often, it is neither cut nor removed in any other way.

● [142] Pubic hair is sparse and is sometimes shaved off (with a piece of glass). It is said that women have no pubic hair at all.

E. Artificial Deformities

A kind of cosmetic of a reddish-brown color is used by the women.

It consists of a mixture of fat and red clay (see Section D above) and is manufactured by the women themselves.

[535] This cosmetic is regarded solely as a means of beautification and is used especially at festivals (dances).

Auen

142
291
516
[415]

≠Auin from Olifantskluft. Photo. 1.

Photo. 3.

Photo. 5
≠Auin from Rietfontein (North)

Auen

● 142
516

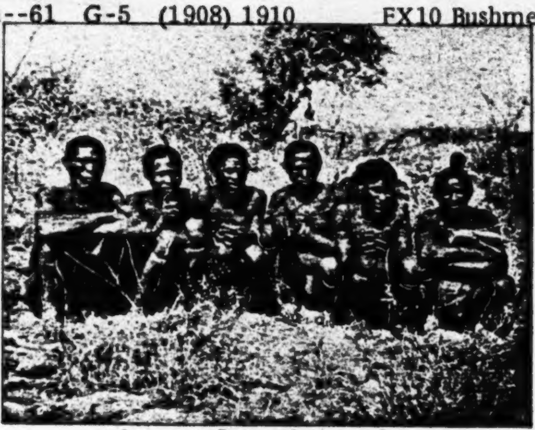
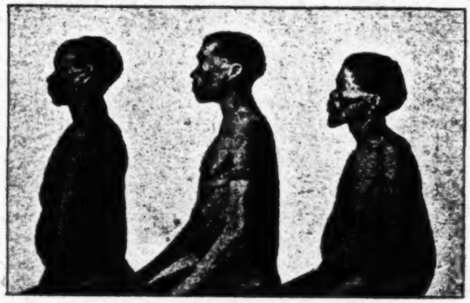
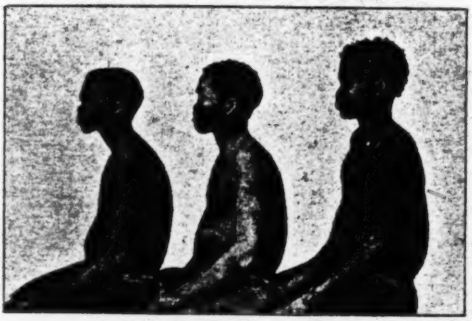


Photo. 2 [see Photo. 1]
≠Auin from Olifantskluft

[301]



Age about 45 50 35 years
Photo. 4 [see Photo. 3]



Age about 17 25 22 years
Photo. 6 [see Photo. 5]
≠Auin from Rietfontein (North)

Auen

●142
516
[301]

≠Auin from Rietfontein (North).

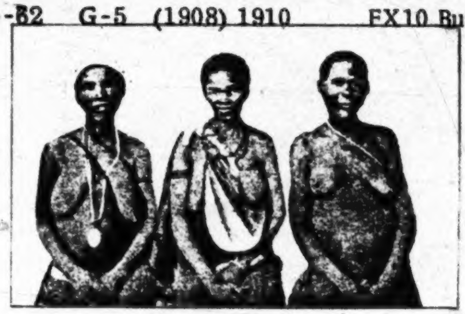


Photo. 7

≠Auin from Rietfontein (North).

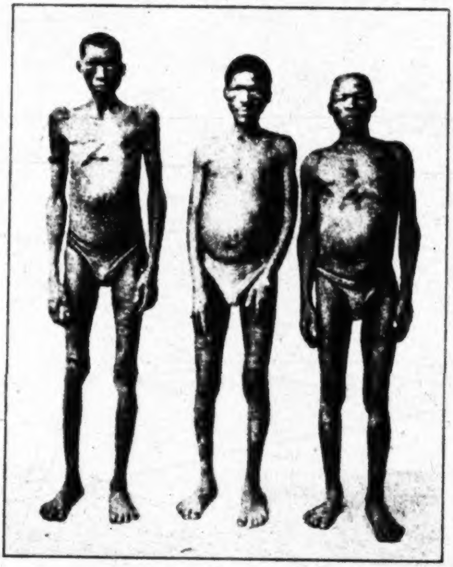
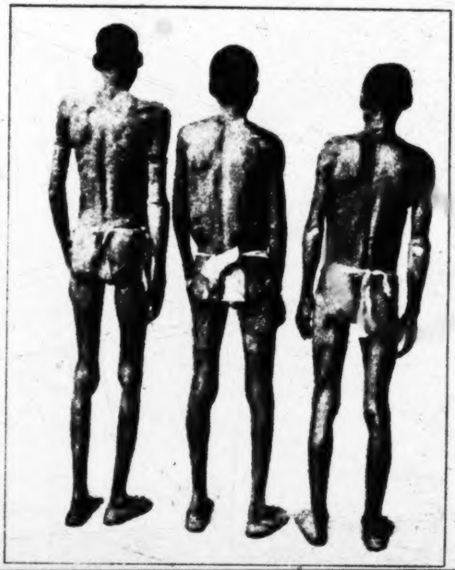


Photo. 9

Photo. 11

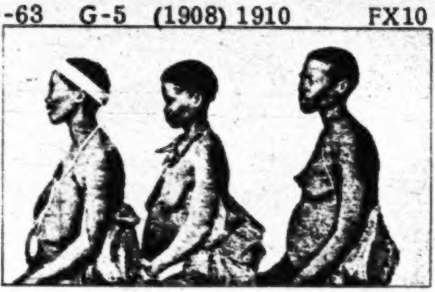
≠Auin from Rietfontein (North)



Auen

● 142
291
301

≠ Auin from
Rietfontein
(North).



Age about 22 30 35 years

Photo. 8 [see Photo. 7]

≠ Auin from
Rietfontein
(North).

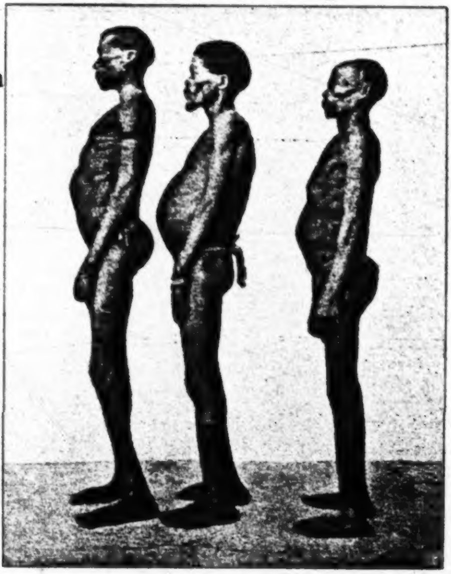


Photo. 10 [see Photo. 9]

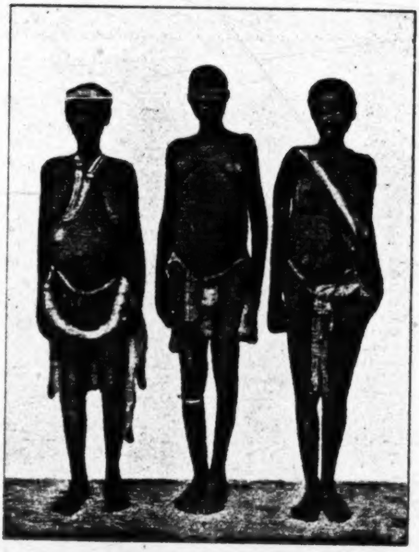


Photo. 12
≠Auin from
Rietfontein
(North)

Auen

142
291

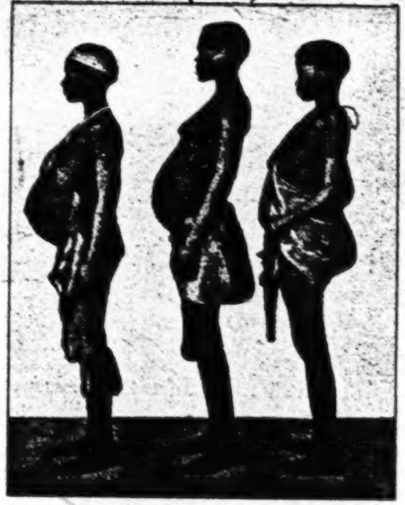


Photo. 13
≠Auin from Rietfontein (North)

342

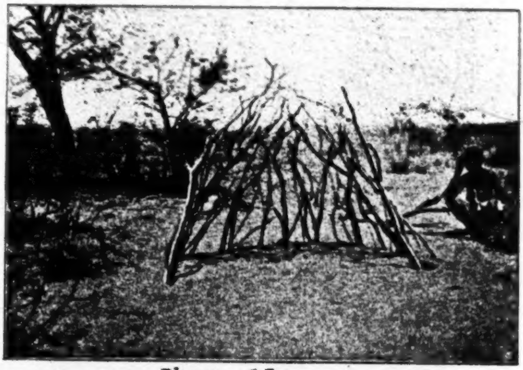


Photo. 15.
Framework of Windscreens.

Photo. 17.
Flimsy Windscreen in the Dry Season.

Auen

● 142

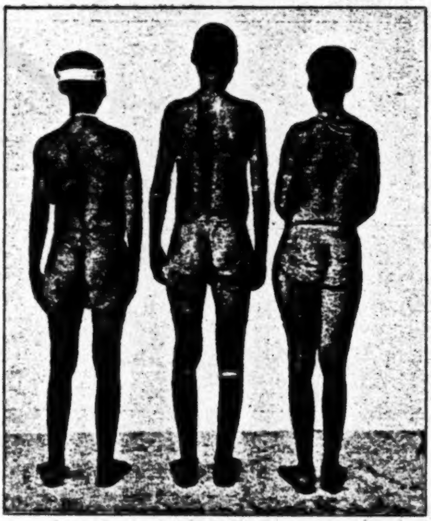


Photo. 14 [see Photo. 13]
≠Auin from Rietfontein (North)

342

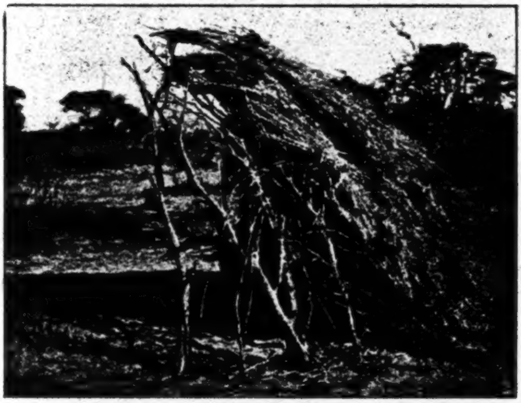


Photo. 16.
Windscreen Half-covered.

[415
516]

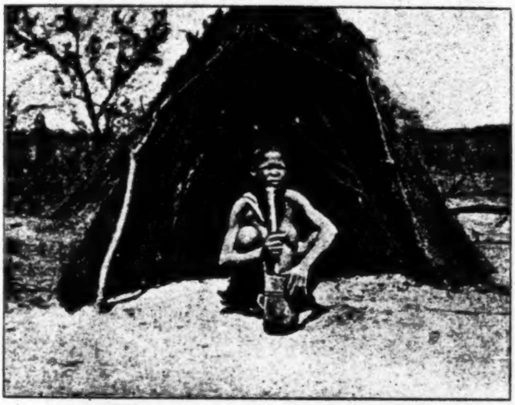


Photo. 18.
Windscreen
(covered) and
Mortar with
Pestle.

142
576
516

142
516
584

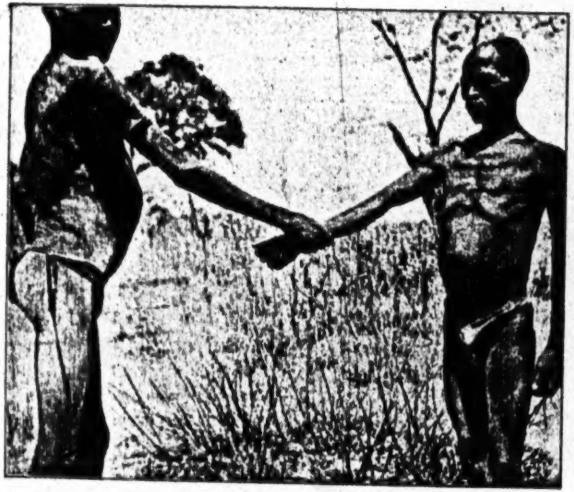


Photo. 43.
Extending the Hand in Greeting.

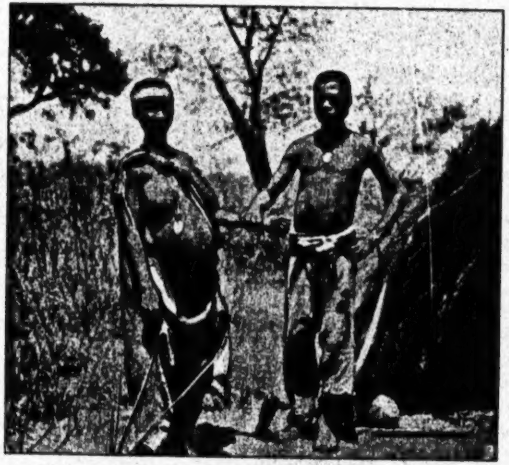


Photo. 44.
Betrothal or Marriage.

WESTERN OTJIMPOLO VELD

DAMA

[9 cont.]

805 shauba, cold season (N. sáob).

!kn-aba, hot season (N. !nái, warm).

535 Among dances, an ostrich and an ape dance were mentioned to me.

123 The studies, which began so promisingly, came to an end because I was evidently unable to present the village chief with enough presents. One evening a boy appeared and told me that the Bushmen had "had to go hunting." I continued to wait a number of days for the !Kung called by Mr. Eaddes. The messengers returned with the news that they had found no one. Another Sunday coat for the village mayor and some yellow money for the Bushmen, and priceless material could have been obtained.

[10]

Chapter 3

The Dama Bushmen from the Palm Bush East of the Ondonga [Ndonga]

173 According to their tradition, these Bushmen came from
Herero country. Hence they represent the connecting link be-
tween the "Saan" in the Gobabis district and the Hei//om
[Heikum] of the north. The people as a whole designate them-
101 selves as Daman = the wealthy. The horde around Oshigambo calls
itself //Huru-Khái. They call their dialect Cháraba. I do not be-
131 lieve that they live far in the interior of the Otjimpolo Veld.
They have an enormous respect for the !Kung. The outermost
cattle posts of the Ondonga probably coincide pretty much with
172 the boundaries of their territory. A number of them are Bantu-
142 ized and have small physiques. The others engage in hunting
439 and supply the black farmers with the flesh of wild game, hides,
648 ostrich egg beads, and poison. They serve as beaters on the
great hunts of Chief Martin. At the court they count for nothing.
The farmers like to see them. Little acts of assistance, a sack
of berries or veldkost, soften the heart of the black housewife,
so that here, as in Uukualuthi [among the Kualuthi?], there are
a number of do-nothings who are nonetheless gladly received.

!KUNG

[25 cont.]

147
481 Similarly, the strength displayed by the Bushmen in using the bow is by no means impressive. While their momentary efficiency is low, their endurance in marching is great. In 1916 when the farmer Schwarz in Neudesenberg (Keitsas) was sick with black water fever, the farmer's wife sent a Bushman to Grootfontein for a bottle of champagne. The man left in the forenoon and returned around midnight. The distance was at least 100 to 120 kilometers, for the highway, which has few detours, is 90 kilometers long. (Informant: Farmer Schwarz in Duwib.)

4. Physical Types and Constitution

●142 The Bushmen are a distinctly human type of savage with very gracile bone structure. A group of them that I designate as South Khoin is the only form of human being adapted to desert life, or in any case is the form best adapted to it.

The type that has developed there can in no way be subsumed in our physical type schema. Since this same type to a considerable degree is also involved in the composition of the northern forest Bushmen, there are naturally a great many individuals whom we cannot classify at all in our sense. At any rate, however, we can -- and here I am anticipating some of my anthropological conclusions -- differentiate among both sexes of the !Kung a longitype and a brachytype. Especially among the women it is almost always possible to differentiate the "chubby youthful form" from the so-called future form.

In another place I have defended the view that the athletic type should be regarded as the true normal-type, and that this type has the innate ability to accumulate a moderate amount of fat. The muscular-respiratory type with a slighter development of the skeleton and musculature does not possess the ability for a great accumulation of fat, whereas the digestive type with slightly developed musculature has a great ability to accumulate fat.

[26] From the athletic type a continuous series leads through the respiratory and digestive forms to the tall-asthenic and short-asthenic types and from there to the decided weaklings.

[26 cont.]

● 142 The athletic type thus represents the best realization of the human type among the races.

Since, from the day of conception on, environmental influences are predominantly of a harmful nature, the average type finally arrived at is the type formed by the average harmful effects, which, on the one hand, are of a hereditary and constitutional nature, and, on the other hand, are conditional effects during the individual's lifetime. The more unfavorable the living conditions are, the greater will be the harmful effect coefficient, and the more the average physical type will approach the asthenic. Only environmental improvement, brought about by high civilization, permits athletic forms to develop in considerable numbers.

According to our schema, we may designate the Bushmen as asthenic on the average, and the best developed among them [146] as respiratory. In the case of many male individuals, there is an ability for considerable fat accumulation, and on the farms I encountered a number of Bushmen who had adapted themselves to a flour diet and had considerable body weight.

The digestive type thus certainly does occur among them, [146] even though we must keep in mind that the diet, which is rich in meat and poor in carbohydrates, counteracts its development.

5. The Course of the Day

805 The !Kung Bushmen divide the 24 hour day into seven segments, which are:
[192] /gam X'ắ-o-a, dawn.
/gam do di /gii, time of sunrise.
!nai /kho, (the sun) is in the middle.
ha ti ≠náu, (the sun) will go down.
X'ắ-o ti ≠nắu, the sun is now asleep.
/gu gă djo-o, one can no longer see the people because it is dark.
!a ds ĩ, midnight.

512 The division of the day varies somewhat with the season of the year. With the exception of the so-called hot season,

[29 cont.]
553 The custom of spitting is undoubtedly original, not a substitute
852 for well water."

551 The father gives his newborn child a name. The boys usually receive animal names, commonly that of the grandfather, and
the girls, plant names. Albinos are unknown among the !Kung
[142] tribes visited by me, but a horde of Bushmen with red eyes is supposed to live in the eastern Sand Veld in the region of the
[845] Dussidum. I have never seen twins; they are probably done away
853 with. The children are breast fed for a long time; older infants
learn to squeeze the milk out of the breast with their fingers or
pull with their teeth on the leathery nipples. The assertion of
847 other travelers that the women kill their children if they are born
[114] before the previous child has been weaned is allegedly not true of
the kin groups visited by me. On the other hand, Vedder (1) reports:

"I must mention one other custom which likewise considerably contributes, and may have contributed in prehistoric times, to the Bushmen being so few in number. Custom demands that a child born when the older child of the same mother is not yet three years old be buried alive. This is a gruesome custom. I spoke about it with a racially pure Bushman. My remonstrances did not convince him at all. He explained: 'We Bushmen are poor people. We have no goats and no cows to give our children milk. If the woman brings two children into the world within a period of three years, we don't know what the older child is supposed to live on if the newborn child uses up the mother's milk. It cannot live on the hard veldkost or on tough meat. The teeth are not yet strong enough. If we let the newborn

---

[113] 1. "Zur Vorgeschichte der eingeborenen Völkerschaften von Südwestafrika. I. Die Buschmänner [On the Prehistory of the Native Tribes of Southwest Africa]," by V. Vedder, Journal of the South West Africa Scientific Society, Vol. I, p. 10, 1925-1926, Windhoek, 1927. -- Cf. also Von Zastrow and H. Vedder, op. cit., p. 414.

[44 cont.]

Toothache

142 I rarely saw irregularities in the position of the teeth, and
[515] never protruding or receding teeth. The only care given the
teeth is the use of iron arrow points for toothpicks. The teeth are
usually yellow, covered with dense layers of tartar, and because
of the sand content of the vegetable diet, are quickly worn down
164 by chewing. Caries are extraordinarily common, but infections
also occur through the exposure of the root canal as the teeth are
753 worn down. If a person has a severe toothache, //Gauab has stuck
a needle into it, and the doctor must be called to get it out. If
there is no general discomfort, however, then no dsao are there.
757 A little piece of wood is sharpened to a point at one end, held
with the point against the root of the tooth, and then the tooth
is knocked out with a stone. This instrument is called "oie."
147 Small children suffer considerable pain when they teethe; some-
753 times dsao (spirits of sickness) are also at work in this case. [Fig.
17 appears here.]

Sore Throat

753 A sore throat means that //Gauab has made a cord and is
755 drawing it tight around the patient's neck. The doctor must remove the cord from the patient; it is about 30 centimeters long and is like the trap cord (//Kao); everyone can see it after the treatment.

Colds (χ'óā)

164 Grippe takes many victims among the Bushmen every year,
513 especially among those who are already tuberculous. In winter, colds are extraordinarily frequent, since the people lie almost naked around the fires. In the forest they are fairly well protected against the wind, but on the open plain the wind changes its direction at night while they are asleep, so that they not only catch cold but often receive severe burns around the stomach -- although this applies only to the men; the women sleep at a greater distance FROM THE FIRE.

[6^8 cont.]

142 Racially, these Bushmen are smaller and lighter in color than
144 those of the north and show the admixtures of the southern Bushman
race to a much greater degree. There is constant coming and go-
648 ing in this region. Seiner (1) reports the following:

> "The Bushmen from around Rietfontein are friendly to the Germans and repeatedly supplied the station garrison with effective help against the Herero and Ovambandjeru passing through. At the time of my stay in January and February, 1907, there was a small village of the Au-nin, who belong to Passarge's Kaukau people, one kilometer north of the barracks, and a village of the Ai-khoe, whom Passarge includes among the Ngami people, one and a half kilometers southwest of the station. The Bushmen of the latter village were subject to the Au-nin, who called them Naru (subordinates, slaves). Since in June, 1908, Dr. Pöch found only Au-nin in Rietfontein, it would seem that the Ai-khoe, in the meantime had emigrated or were driven out by the Au-nin."

To some extent all these tribes represent a cultural unit. A
[184] 114 fine study by First Lieutenant Kaufmann (2) is available for the
≠Auin, and one by D.F.Bleek (3) for the Naron. I shall now compare
these tribes with one another, and it is to be understood that only
the data concerning the Nogau are my own.

[113] 1. J. Seiner, "Der Verbindungsweg zwischen Deutsch-Südwest-Afrika und der Betschuanalandeisenbahn [The Line of Communication between German Southwest Africa and the Bechuanaland Railway]," Globus, Vol. 96, 1910.

[113] 2. Kaufmann, "Die ≠Au-in, "Mitteilungen aus den deutschen Schutzgebieten, 1910.

[113] 3. D.F.Bleek, "The Naron, A Bushman Tribe of the Central Kalahari," Publications of the School of African Life and Language, Cambridge, 1928.

!KUNG

●142
291
301
302
[854]

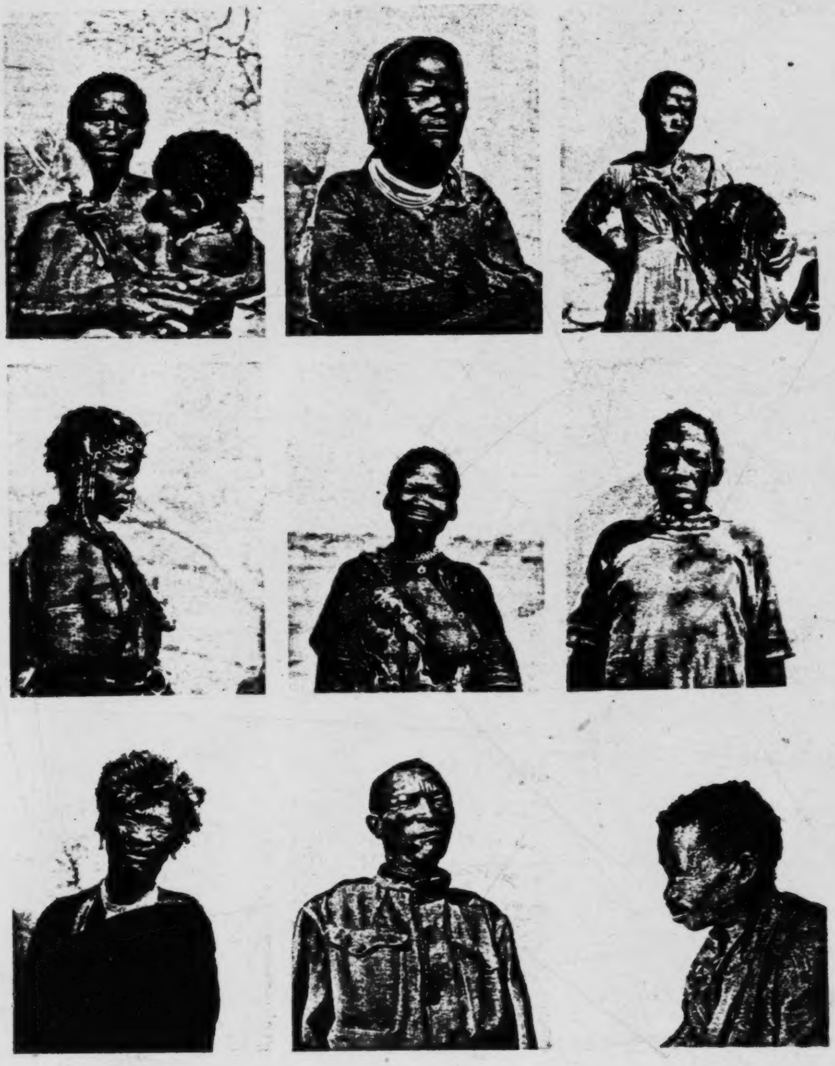


Plate V. !Kung Bushmen from the Upper Omuramba u Ovambo.

!KUNG

142
291
301
516

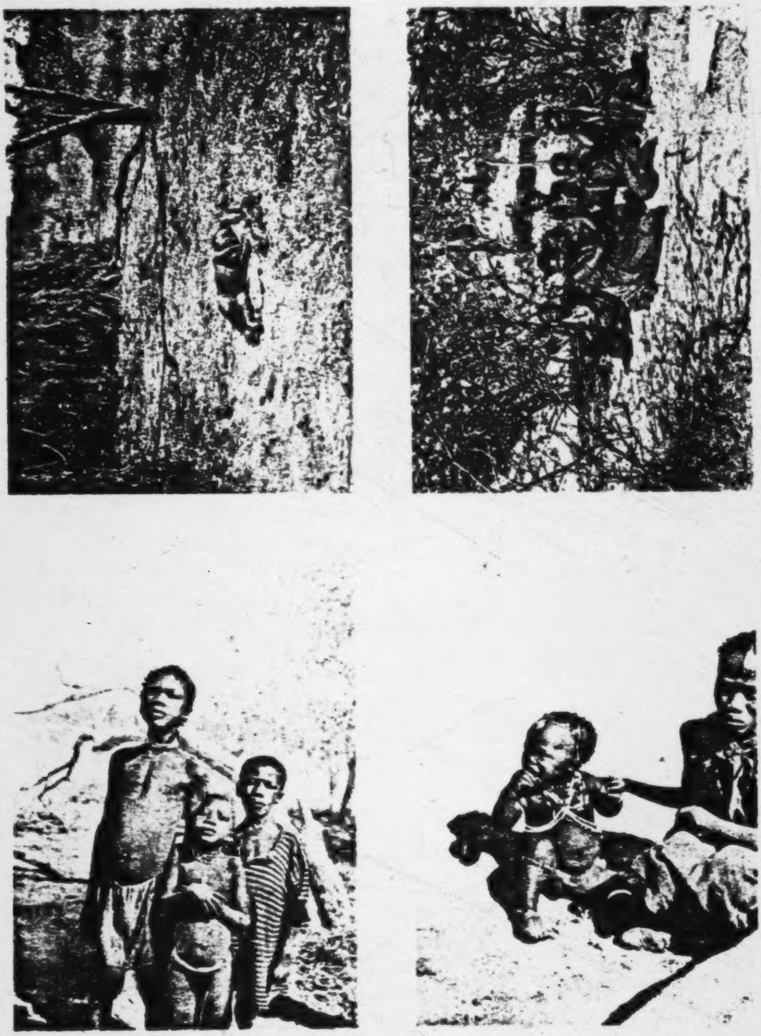


Plate VIII. Children of the !Kung Bushmen.

!KUNG

142
301

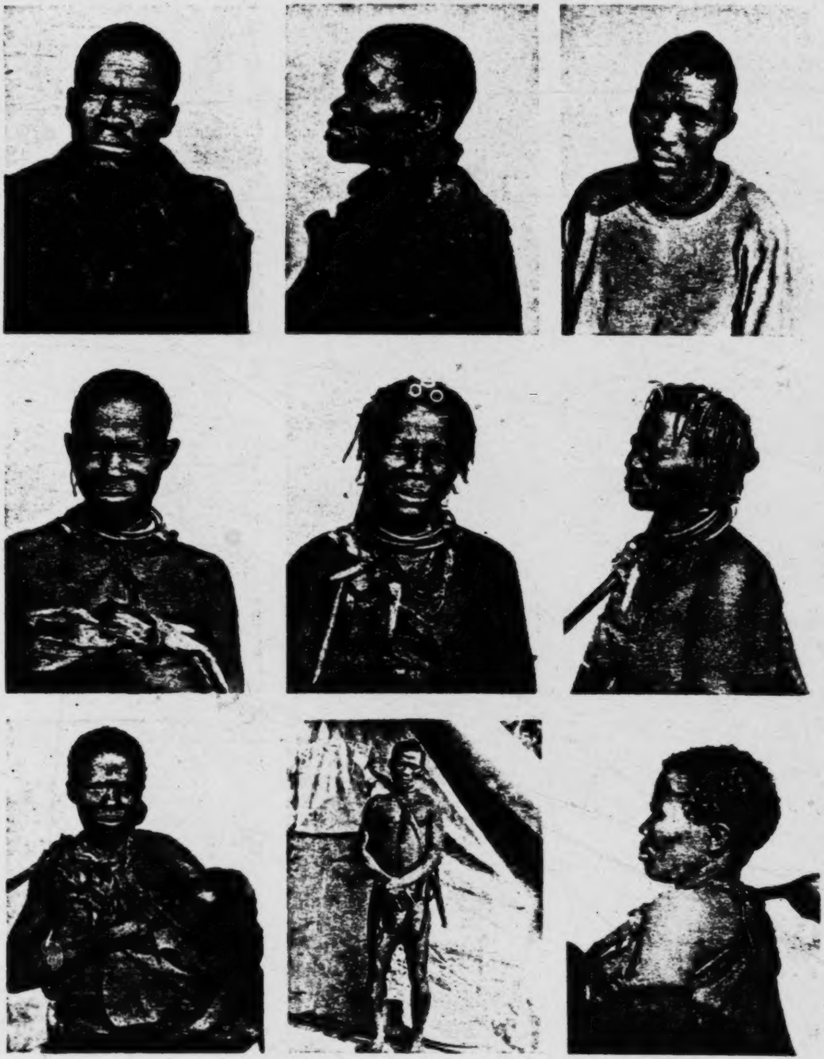


Plate X. !Kung Types from the Otjimpolo Veld.

/241 cont./

128 Tables giving all the /242/ measurements for each individual, are attached, as are forms for the observations concerning the descriptive characteristics of the individuals measured.

141 The average values for the adults measured are as follows:

	Men	Women
1. Body height	155.3	149.7
2. Height of the chin above the ground	135.7	130.6
3. Height of the navel above the ground	93.2	90.4
4. Height of the upper edge of the symphysis above the ground	82.2	79.6
/Fig. 1 appears here./		
5. Height of the acromion above the ground	130.5	124.9
6. Height of the elbow joint above the ground	99.9	96.5
7. Height of the projection of the radius above the ground	76.0	73.4

[142]
[291]
[301]
[342]
[516]

Fig. 1. Heikum Bushmen. Men.

/244 cont./

Indices

		Men	Women
141 I.	Skull index	76.3	73.5
II.	Average index of the skulls of all adults measured	74.77	
III.	Physiognomic face index	76.44	76.1
IV.	Physiognomic nose index	102.5	97.44

147 [146] The state of nutrition of those examined may in general be called inadequate, and the amount of fat slight. Even among younger individuals the skin is strikingly slack and can be grasped in wide folds. One has the impression that there is a connection between this slackness of the skin and the extreme fluctuation in the saturation of the tissues, which is the rule since the Bushmen experience frequent and long-lasting thirsts. The men assured me that they could march without water for four days in great heat, a statement which surely deserves to be credited.

142 The skin color of all those examined, with the exception of two in whose case racial mixture is a possibility, is a brown of medium tone shading over into yellow.

The palms of the hand and soles of the feet are a lighter color, but do not show such a striking contrast with the back of the hand as is the case among the Bantu /245/ Negroes. The skin of the chest and abdomen has a slightly darker coloration than that of the face. Scars are very common, especially on the chest and abdomen, and [513] usually stem from burns to which the Bushmen readily expose themselves by sitting and sleeping near the open fire. These scars have a lighter tinge than the surrounding skin and look almost pure yellow.

The iris of all those examined is deep brown in color.

Compared with Europeans, the hair growth of the Bushmen is very modest. It is confined almost entirely to the skull; beards are found only on a few men and even then they are sparse. Hair elsewhere on the body, including the arm pits and pubic hair, is practically nonexistent.

The color of the hair on the head is a deep black. The individual hairs grow to a length of about four centimeters for men and about six centimeters for women. The hair is fine and curled in a spiral. The curvature radius of the spiral amounts to about two

/245 cont./

142 millimeters. Two or three hairs form a tight unit. A number of such units are clustered into a tuft that forms an almost impenetrable tangle of hair. The yellowish-brown skin of the head is visible between the tufts, so that the surface of the skull gives the impression of an area with black spots. 302 Extensive variations are to be found in the manner of dressing the hair, but all Bushmen from time to time have their head hair cut. The women commonly leave an edge of longer hair uncut and let it fall horizontally toward the back from the hairline on the forehead. Frequently also an oval area is shaved on the skull or on the edge of the forehead down to the ears.

145 I did not observe any loss of hair, even among old persons, but I did notice graying, not, however, to the same extent as among Europeans.

304 Tattooing is very popular among the Heikum Bushmen.

I found three types of tattooing:

1. An ornamental tattoo. This consists of parallel longitudinal incisions about one centimeter in length and arranged in rows. These rows of incisions are to be found predominantly on the face, on cheeks, temples, and foreheads, and especially among women they frequently radiate towards the middle of the face which, however, is left clear. The ornamental tattoo is also to be found on other parts of the body at any number of places, such as the chest, the abdomen, the upper arm, and the upper thigh. The incisions are quite superficial and give the appearance of fine black lines. The bluish-black coloration of the scars is achieved by rubbing charcoal into the freshly-made incisions.

2. Deeper incisions, which correspondingly leave heavier scars, form the forehead tattoo which is common to all Heikum Bushmen with no age or sex distinctions. The tattoo consists of several parallel vertical incisions about two centimeters in length between the eyebrows. As a result of this tattoo there is a number, usually five, of deep and closely adjoining folds between the eyebrows, giving even younger individuals an older appearance. In the case of older persons the base of the scars /246/ is raised by the formation of keloids, so that the region between the eyebrows has the appearance of a cock's comb.

/246 cont./

304 3. The third and most curious is a manner of tattooing which I should like to designate as the antelope tattoo, a kind of inoculation that I have seen in no other native African tribe. This type of tattoo is used only by males and consists of the following: [827] Through parallel incisions little pieces of antelope flesh, especially gemsbok flesh, are placed under the skin of male children, with the idea that the child thus inoculated will have the speed of the antelopes in running. The incisions are most commonly made on the buttocks, but they are also to be found on the chest, abdomen, and back.

757 One also commonly finds scars all over the body from blood-letting incisions "to draw off" illnesses.

142 Viewed from above, the head shows no peculiarities, although dolichocephaly does not seem to me to be as marked among the Bushmen as it is among the Bantu Negroes. The protuberance at the back of the head is so little developed that it can scarcely be felt on most individuals.

The profile view of the face permits one to recognize a clear alveolar prognathy. In the case of most individuals the upper lip in the profile view extends beyond the tip of the nose. The edge of hair around the fairly straight forehead runs in an even curve from one ear to the other.

The bones of the eyebrow arches protrude sharply, while the forehead bulge is only slightly developed.

The cheekbones with the widely-projecting zygomatic arches form prominences jutting out sharply in the temporal and cheek region.

142 147 Most Bushmen show a striking prominence of the parotid gland region, which in the case of some individuals swells out so that it is actually hemispherical. I was unable to determine whether the swelling is caused more by hypertrophy of the parotid gland or by a particularly strong development of the chewing musculature. This swelling of the parotid gland region is, I believe, not a racial peculiarity of the Bushmen, but rather a consequence of their way of life which necessitates a root diet requiring very heavy use of the chewing apparatus. At any rate, I observed the same peculiarity among the Herero, who for a long time were dependent upon veld food.

Heikum
Kung

/246 cont./

● 142 147 171 The Herero, like the Bushmen, give the use of veld food, especially the onion known as unki, as the cause of this peculiarity. The attached photographs illustrate the swelling in the case of a Bushman (Fig. 3) and a Herero (Fig. 4).

142 The nose is sharply set off from the forehead and strikingly small. The bridge of the nose is so flat that in some cases one can scarcely speak of a bridge of the nose; the area between the cheekbones is an almost level surface. The tip /247/ of the nose is small and pointed slightly upward. The largest diameter of the nostrils runs diagonally. The lips are narrow in comparison with those of most Negroes; their color is almost exactly that of the surrounding skin of the face.

The teeth of the majority of individuals are in pretty good condition; among the 39 persons I examined, I found only 28 carious teeth. In comparison with a European, the extreme wear of the teeth is striking; it progresses with age and is so marked in old people that the teeth are worn down to the roots, again a consequence of the way of life dependent upon a root diet. The incisors very slightly point forward.

304 648 The Heikum do not have artificial deformities of the teeth. Several of those examined displayed the well-known Herero deformity (filing down the inner sides of the two central upper incisors and removal of the four lower incisors) [Figs. 3 and 4 appear here], which is explained by the fact that these Bushmen had been Herero slaves in their childhood and were marked in the Herero manner by their former masters.

142 The ear is of normal size; its outline is rounded, not bent at an angle. The ear lobe is always joined to the head.

In spite of general gauntness, the marked development of the abdomen in most cases is striking, even among the adults.

The female breast is conical in the case of individuals who have not borne children; the region around the nipple is usually separated by a gentle furrow from the rest of the breast. The color of the nipple area is deep brown. The nipple is raised.

[304] Circumcision is not practiced by either men or women. Among the Heikum and Kung women I did not find the abnormally pronounced development of the buttocks, known as steatopygia, which [144] is so common among Hottentot women. To my mind this is

/247 cont./

144 conclusive evidence /248/ against any notion of racial kinship between the Bushmen and the Hottentot.

The arms are thin and not very muscular; the hands are small 142 and very delicate. In contrast to the musculature of the arms, that of the legs is better developed. The arch of the foot is good; only in one case did I observe flat feet.

The big toe is pointed straight and shows neither a deviation toward the median line of the foot nor one away from it.

[291]
[301]
[516]

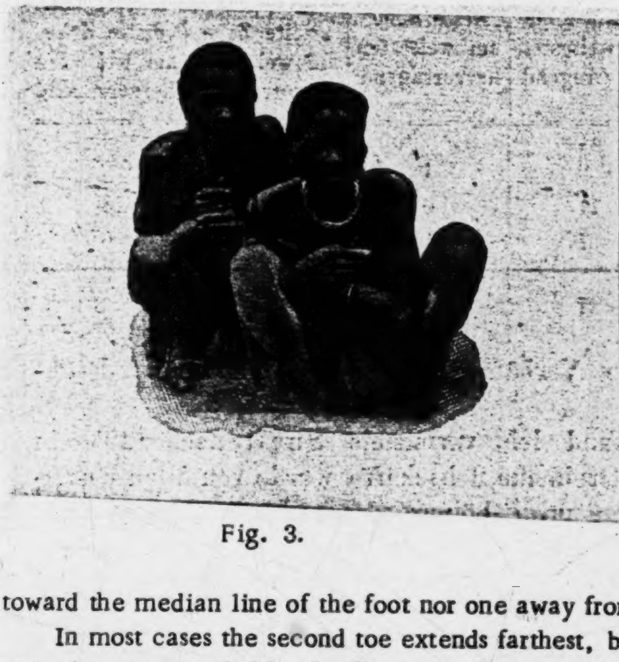


Fig. 3.

Fig. 4.

In most cases the second toe extends farthest, but in two cases it was exceeded by the first toe. The second and first or second and third toe of some of the others examined extended the same distance. The following table gives more exact information on this matter:

/248 cont./

142

	Number of persons examined	Second toe extending farthest	First toe extending farthest	First and second toe extending farthest	Second and third toe extending farthest
Men	14	9	1	4	0
Women	17	11	0	3	3
Children	8	7	1	0	0
Total	39	27	2	7	3

151 I was also able to gather some data concerning physiological conditions. By means of Snellen charts, I discovered very keen sight for all the persons examined. Threefold visual keenness was attained by all those examined, and some had even higher degrees, up to sixfold.

The ticking of a watch could be heard at a distance of three meters by most of those examined.

I have frequently observed yawning among Bushmen.

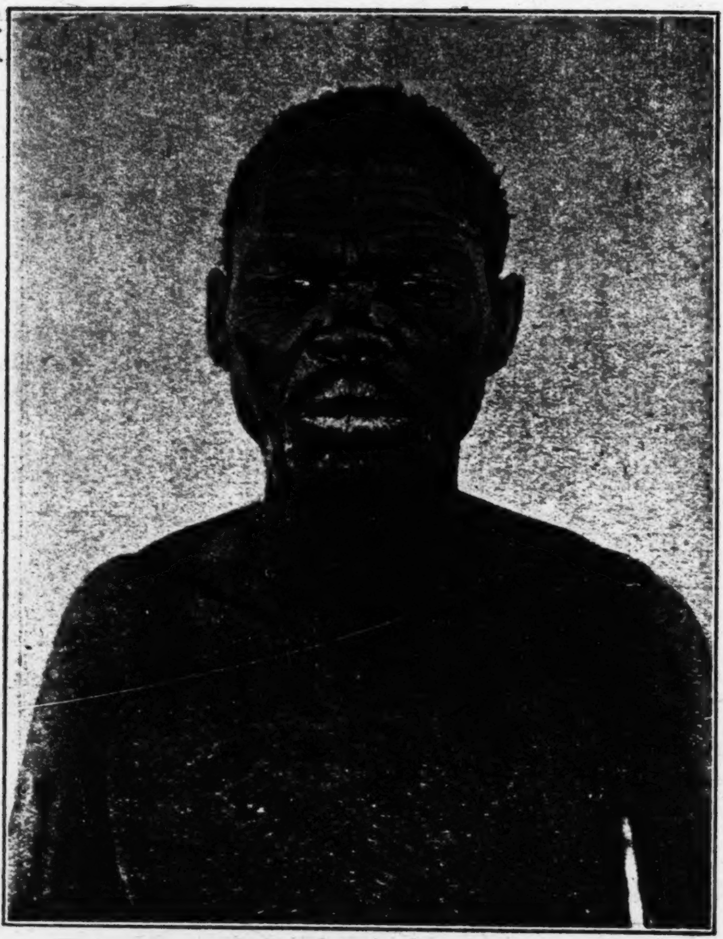
48/ The gait of the Bushmen has something very characteristic about it; in walking, they raise the knees surprisingly high, a custom that is explained by the nature of the country. Because of the low and commonly thorny shrubs through which they travel with uncovered legs, they are forced to raise their legs quite high in walking, and they maintain this gait even when they are moving across ground that has no growth on it. In addition, the achievements of these small inhabitants of the bush on the march and in running are quite enormous.

[147] Bushmen who had been sent out on patrols by the station covered a distance of 130 kilometers in less than 48 hours without displaying visible signs of fatigue. They followed the cavalry troop, which frequently broke into a trot, happily and without difficulty on foot, trotting themselves whenever the troop accelerated its pace.

201 /249/ Extreme astonishment is expressed by opening the mouth and eyes wide. I was able to observe this myself when I played a phonograph before the unsuspecting Bushmen. When the performance was over, the audience asked me whether the people who were in the apparatus and sang there also slept in it and received their food through the horn.

8: Fourie D-5 (ca. 1920) 1928
FX10 Bushmen FX10

142
302



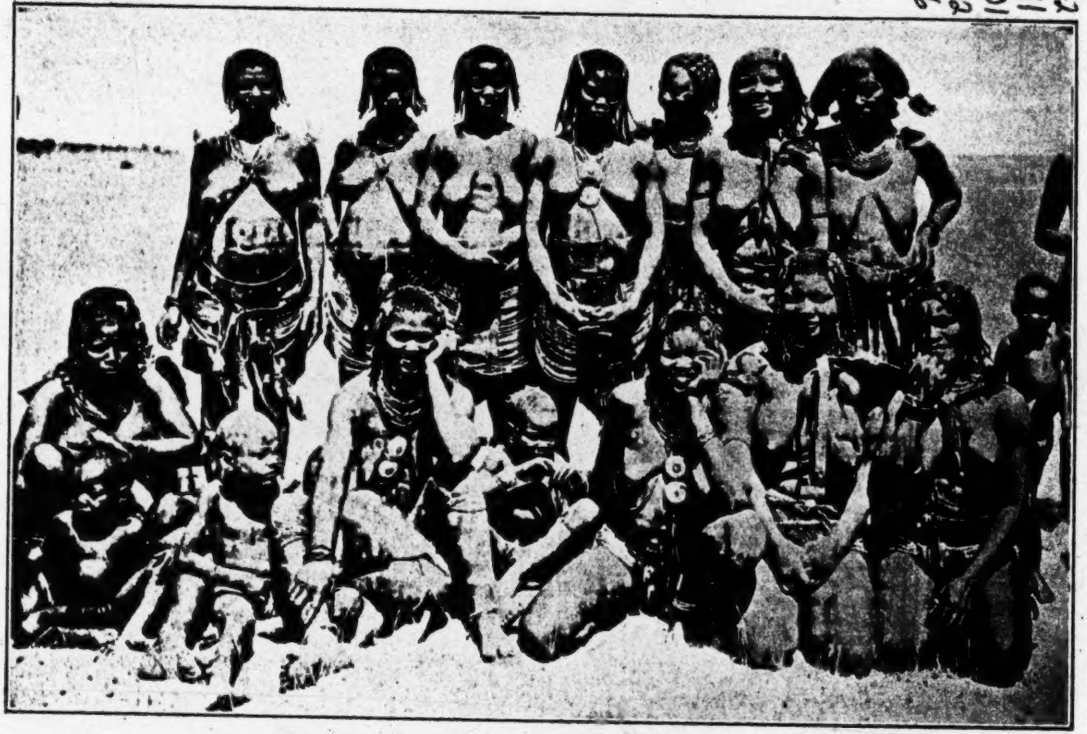
/nu-//ēin Bushman.
Gobabis.

[FACING p. 80]

8: Fourie D-5 (ca. 1920) 1928
FX10 Bushmen FX10

142
291
301
302
516

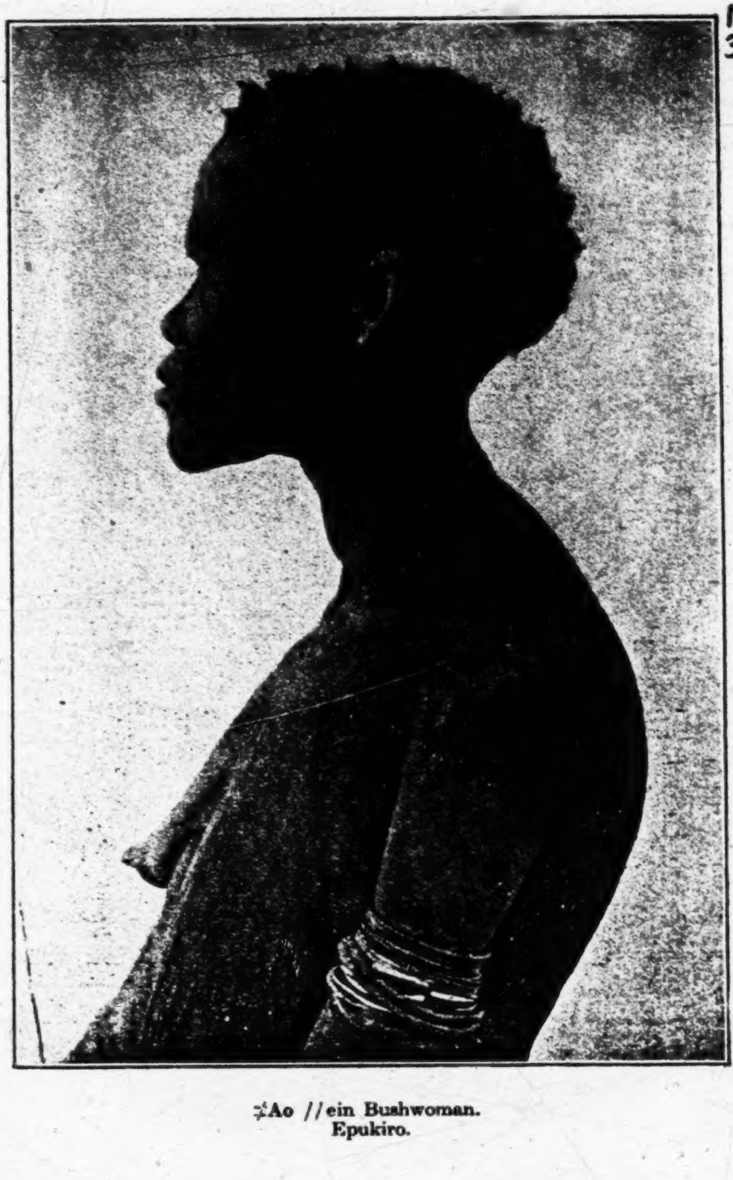
[FACING p. 81]



Wakeddi Women (Hei //om).
N.W. Ovamboland.

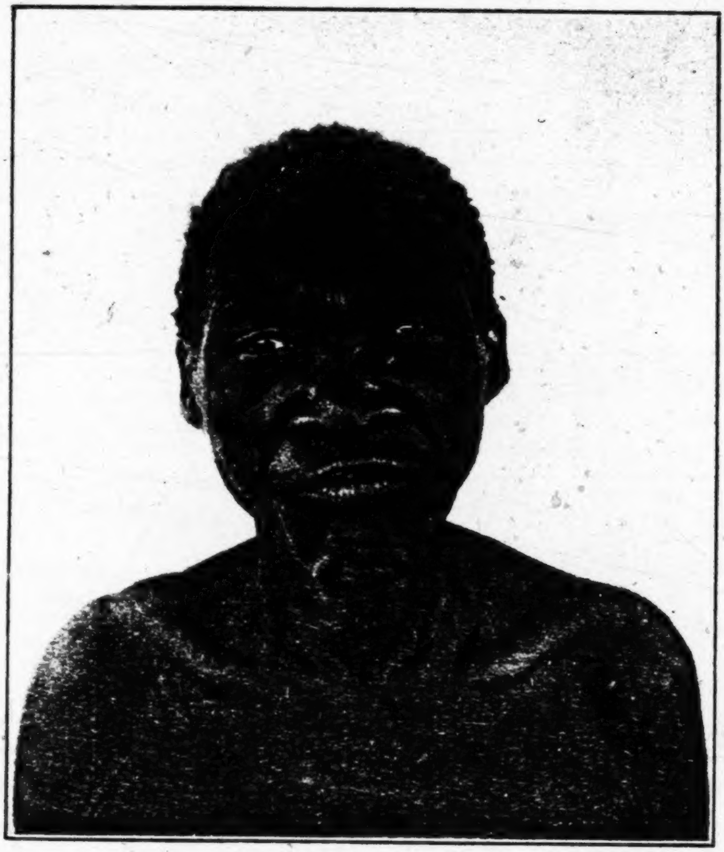
8: Fourie D-5 (ca. 1920) 1928
FX10 Bushmen FX10

142
301



≠Ao //ein Bushwoman.
Epukiro.

[FACING P. 88A]



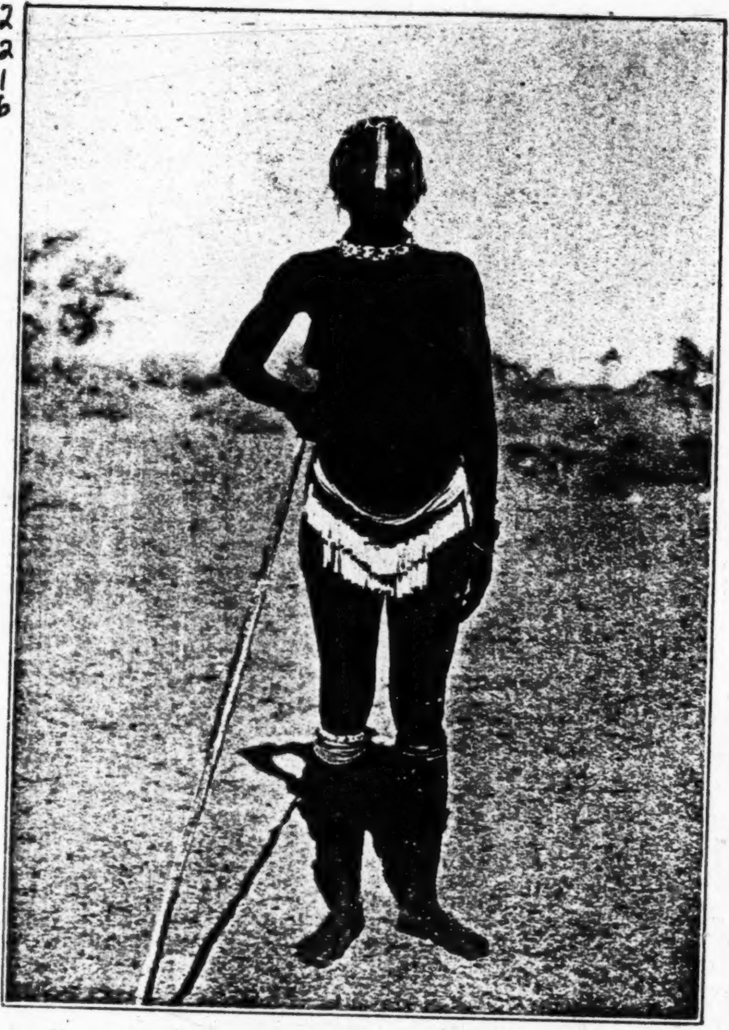
≠Ao //ein Bushman.
Epukiro.

[p. 88 C]

8: Fourie D-5 (ca. 1920) 1928

FX10 Bushmen FX10

142
292
301
516

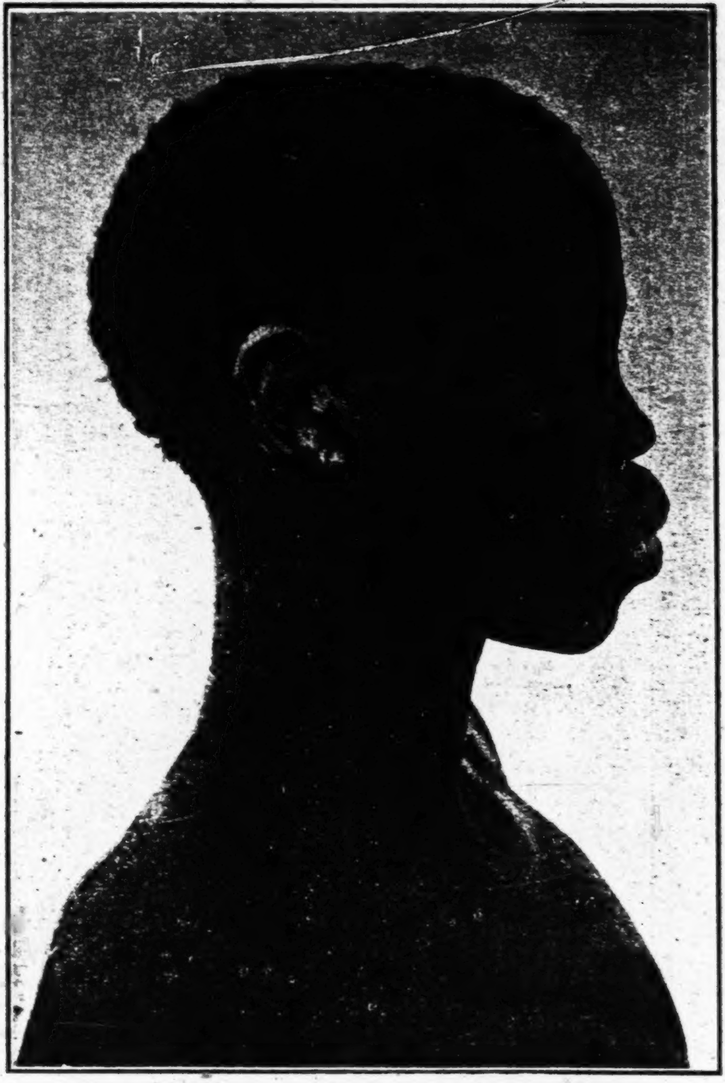


Naron (//aikwe) Woman in Ceremonial Dress of Ostrich Shell Beadwork.
Sandfontein, Gobabis.

[FACING p. 89]

8: Fourie D-5 (ca. 1920) 1928
FX10 Bushmen FX10

142

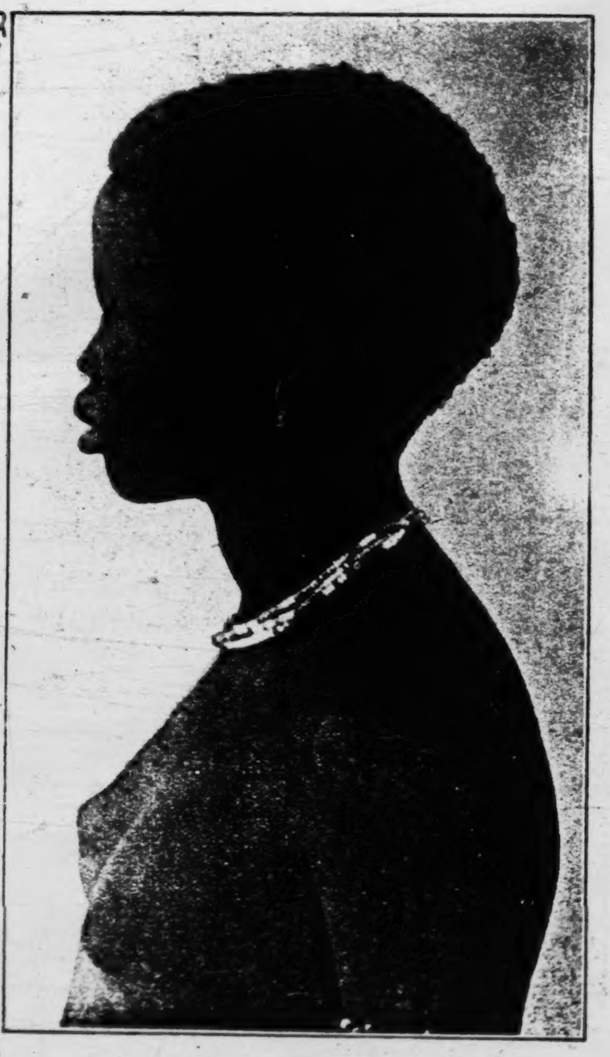


ǂAo //ēin Bushman.
Epukiro.

[FACING p.96]

8: Fourie D-5 (ca. 1920) 1928
FX10 Bushmen FX10

142
301



≠Ao //ein Maiden.
Epukiro.

[FACING p.97

114 all our food and water, gasoline, and equipment in supplies to
last us for several months. We crossed great drought areas,
once crossing four hundred miles of the central desert of
Bechuanaland where there was no water at all, and once
traveling every day for two weeks into an unmapped part of
the desert of South-West Africa, close to the Bechuanaland
border, where we found a waterhole and refilled our empty
[12] drums. All this was for the purpose of filming and studying
the life and customs of the people of the Kalahari, who are
called the Bushmen.

142 Bushmen are a naked, hungry people, slight of build and
yellow-skinned; the only feature they have in common with
their large-boned, darker-skinned neighbors, the Negro or
Bantu tribes living at the edges of the Bushmen's territory,
is their peppercorn curly hair. Otherwise, Bushmen are very
like the Asian peoples, often having Mongolian eyefolds and
rather broad, flat faces with almost no noses at all. Because
of the dust, perspiration, and the blazing sun, their skins
darken to a copper brown, but under their arms where sweat
has washed the dust away the yellow skin shows. Bushman
babies, in fact, are born pale pink, often with a dark, pig-
mented area at the base of their spines which Kung Bushmen
[826] call "the jar"—because, they say, the mother carries her baby
and her water jar together in the pouch of her garment—
but which we know as the Mongolian Spot.

Physically, the Bushmen are a handsome people, though
short of stature—a man being a few inches over and a woman
a few inches under five feet—and a little swaybacked of car-
riage, which makes their bellies stick out. They are handsome
481 because of the extreme grace in their way of moving, which is
142 strong and deft and lithe; and to watch a Bushman walking
or simply picking up something from the ground is like

9: Thomas T-5 (1951-1955)1959
FX10 Bushmen FX10

watching part of a dance. This is not a beauty of the flesh, 142
and therefore exists in everyone who is not an infant or stiff [461]
with age. Bushmen have long, slender arms and legs, and the
men are built for running, all lean muscle and fine bone, and
consequently they often seem younger than they are. They [194]
are delicate of proportion, too, and they speak very softly.

Bushmen dress themselves in the skins of animals, a man 291
wearing only a leather loincloth and a woman a small leather
apron and a big kaross, a leather cape made from a whole
animal hide, belted at the waist with a sinew cord, knotted at [854
the shoulder, forming a pouch in back where a baby can ride, 482
and where the woman carries her blown ostrich eggs, which 415
are used as water containers. Bushmen are a very neat people; 237]
they keep their clothes tidily about themselves, and though [515
they do not really need haircuts because their curly hair 302]
breaks off by itself, they prefer to keep their hair cropped
close to their heads. White ornaments of ostrich-eggshell
beads dangle from tufts of their hair and are strung in tiny [301]
bands around their arms and knees. Sometimes they wear
leather sandals, but mostly their hard brown feet are bare.

The first time we came to the Kalahari, we spent several 609
months looking for Bushmen. It was very hard for us to find
them because they are shy of any stranger. If they believe
that you are coming, they run away like foxes to hide in the
grass until you have gone. Their tiny huts, dome-shaped and [342]
made of grass, are also inconspicuous. I once walked right 609
into an empty werf, as their tiny villages are called, and 621
didn't see the little scherms, or huts, hidden in the grass until
I noticed a small skin bag dangling in a shadow, which
was a doorway. Then I saw the frame of the scherm around
it, then the other scherms as well. The werf was abandoned,
all the people had slipped away, but I heard two voices whis-

291 Both men were thin, brown-skinned, and wore nothing but
loincloths, and they looked very out of place next to us,
among our big trucks and boxes of equipment, squatting
naked like two frogs against the long grass and reddening sky
of their country. We sat by the fire to talk with them, and it
was the old man who answered our questions. His name was
[194 Ukwane, and he seemed very old, for he spoke with a hesitant,
551] cracked voice that faded into a whisper at the end of
every phrase, and whenever some of us would leave or join
the group at the fire he would stare intently at us, frowning,
[164] leaning forward a little because he could barely see us, his
eyes being filmed with cataracts, hazy blue.

142 Ukwane had great wrinkles lengthwise down his belly
where his paunch had shrunk. His hands were knobbed and
his shoulders stiff, yet his legs were as supple as a baby's, for
[514] he sat crouched with his knees in the air and his heels tucked
up tight against his buttocks. His skin looked old, too, like
[302] old leather, hardened and black like a glove that has been left
in the rain, and his curly hair was disheveled, uncut, untidy
with pieces of straw.

609 Our questions frightened Ukwane, and often he was at a loss for something to reply. He thought we were policemen coming to look for some lost horses, for somehow a rumor had reached into the farthest corners of the veld that a European farmer had lost seven horses and all the people in the veld were afraid for their lives. The first thing he said was that he hadn't seen any horses and certainly hadn't taken them himself. He was too old, he said. We told him that we were not policemen and, besides, had never heard of the horses, but he was not reassured. He coughed and turned to the young man, who looked at us with nothing to say.

609 The young man was also very shy, but had a greater dignity
194 than Ukwane because of his cool, proud bearing. He said

GiKwe

very little, and when he did speak it was in a voice so soft that 609
it was almost inaudible. Also, he held his hand in front of his 194
mouth with a finger against his lips, which muffled his words so that only Ukwane could understand them. This was what the young man intended; he meant for the old man to speak for them both and only wanted to help him through tight spots in the conversation.

The young man told us his name, though, which was Gai. 609
Gai sat crouching too, like Ukwane, and kept self-consciously shifting his position, pretending to be unconcerned. He glanced at us out of the corners of his eyes and smiled skeptically from time to time, for although he did not know us and, as we learned later, had not seen Europeans before, therefore had no way of judging our remarks and our expressions, he was younger than Ukwane, and prouder, and was afraid of showing his naïveté, afraid of seeming to believe a lie or disbelieving something that everyone should know was true.

Gai was extremely handsome. In fact, he was one of the 142
most beautiful human beings I have ever seen, tall for a Bushman, his head shaved, showing a strong, domed skull. His face was strong, too, a little heavy of bone, with a big jaw which he carried thrust forward and up so that he looked at you from the bottom of his eyes, a reserved gaze. His body was smooth and brown, built compactly, the body itself long in proportion to the arms and legs. Like all Bushmen, he was narrow of shoulder and hip, with a deep chest and a large belly, and when seen from the side as his belly relaxed he seemed wider from front to back than he was from side to side, very like a hunting animal whose chest is deep but narrow. Gai was also well dressed, not with a strip of leather like 291
Ukwane, but with a beautifully designed, worked, and fringed loincloth with two wide tabs at the back which he could spread to sit on. He wore a band around his hips, too,

609 In a short time we heard a rustle in the veld, and a young
854 woman who seemed to be in her early twenties stepped from
the bushes. She was, Ukwane said, Gai's wife, and on her hip
she carried a baby, a naked three-year-old who looked at us
from his wide eyes fearlessly, then, realizing that we were
strangers, buried his face in his mother's arm. His mother
stroked him calmly and came toward us smiling and nodding
her head graciously, although a little pulse was hammering in
the V of her throat. We learned later that she had been sitting
in the bushes very near us, and when she had seen her husband
go by she had assumed that everything was all right and
had come to greet us, not bothering to answer his cries.

●142 She was a short, sturdy woman with round arms, long
thighs, and short calves. She had a rather large belly and
square, strong shoulders, and she wore a very tattered cape
291 or kaross over her back, with a small leather apron around her
hips. She had no ornaments except a row of blue scars over
304 her eyes, a decoration, and she had allowed her hair to become
302
184 disheveled, long, and a little tangled, hanging down
over her ears in tight spirals, instead of having shaved it off
as most Bushman women do. All this gave her a very matter-of-fact
air, which was not deceiving, for she saw in a glance
that we were harmless and, looking us over, sat down at once
beside me.

304 Her baby pulled, twisted, and tugged at her, and from the
way he behaved I judged that he kept her too busy to be forever
[854] cutting her hair or making bead ornaments. Besides, she
told us later, if she wore ornaments, the baby pulled them
off. She had her row of scars, though, delicate and arching
over her brow, making her eyes seem wider; as well as a row
of striped scars along her thighs. These, say Bushmen, are
made to imitate the beauty of zebras, and many women wear
them, having been decorated when they were still young. It

of the old women, Dasina, who was Tsetchwe's mother, in- 609 276
haled too deeply and began to faint. Tsetchwe half turned 621
her mother so that everyone would not see her, and, putting an arm around her for support, let the old woman lean on her shoulder. Our interpreter laughed, and Tsetchwe turned to glare. Tsetchwe's back was exactly like her mother's, broad but curved in at the waist, the old woman's a little bloated but Tsetchwe's young and strong.

Another old woman was smoking, too, puffing on a short, wide pipe cut from a leg bone of some large antelope, so big that she had to stuff one end with grass to keep the tobacco inside. She almost unhinged her jaw each time she puffed. She would inhale and spit, cough, and inhale again without a sign of dizziness, and when she saw Dasina faint she too laughed out loudly. Her name, she told us, was Twikwe.

Twikwe was skinny and tall as a man, with long, lanky 142
arms that she flung about in the air, gesturing, and long legs 156
that jerked when she walked. She wore only a short piece of 593 621
leather that reached from her waist to her thighs, and we could see that she was wrinkled from head to foot, her skin hanging in long, vertical wrinkles down her thighs and belly, like an old apple that has dried. She talked incessantly and loudly, always opening and closing her mouth, and she joked, for Ukwane and the young boys near her laughed at everything she said. She was telling how her husband had outdistanced her as they were running away and was surely running still. Every now and then she stopped her talk to shout out to him, jeering, saying that he was depriving himself of tobacco and should come back; then everyone would listen, but no sound came from him, no answer. He never did come back, and in the weeks we were there we never saw him. Per-
haps he was running away from Twikwe, for we later learned [590]
that he was living in a valley with his other wife.

142 621 The third old woman was Ukwane's wife, and her name was Kutera. She was the oldest of the four women by many years, and much the frailest; her arms and legs were spindly, and she was so thin that her slender bones stuck out. She moved slowly, feebly, and spoke in a high, thin voice like the piping of a little bird. She didn't even have the big belly that Bushmen usually have; instead, her belly clung to her backbone and she looked like a little, dry bird skeleton, ready to splinter or be blown away.

The other members of the group were the three young boys. One, Giamakwe, about eleven years old, was the son of Ukwane's old age, and the other two, Wite and Witabe, about ten and fourteen, were the sons of Twikwe and the man who ran away. All were extremely thin, with arms and legs like matchsticks, and each wore a tiny rag of a loincloth that had been cast off by someone else and cut down to their sizes—just tokens of modesty, as the boys were not covered
857 up at all. But they were very gay and active; their shyness of
621 us vanished immediately and was replaced by excitement; they whirled and spun like dervishes when they saw the gemsbok, played leapfrog, jounced each other, and ran circles around the werf, followed by the baby, Nhwakwe, who chased them like a puppy and could not keep up. He would tire from time to time, fall into his mother's lap to nurse, and then, refreshed, would rush headlong after the three boys again. He never did catch them, but this did not make him angry or make him cry.

224 When everyone was present, looking hungrily at the gemsbok on the jeep with a swarm of redheaded flies already at its mouth, Gai and Ukwane got their knives and rolled the gemsbok to the ground. She fell with a hard bounce, a thump as her legs or her long horns struck, and a huff as gas rushed from her open mouth. She lay stiffly, looking awkward with

481 trees, and on our way we found a path where before there
487 had been none. We followed it, it led to camp, and at its end we found Gai and eighteen other Bushmen, whose feet as they had walked in single file had worn a track. As we approached, 609 the eighteen strangers drew back and together, the women behind the men, babies in their arms, and watched us hostilely. Gai persuaded them to sit down, which they did, all together, and when we asked them if they were hungry they said yes, so we gave them a drink of water and set a big pot of cornmeal to cook on our fire. We gave them each tobacco, which they smoked while they waited for the cornmeal to cook.

621 162 596 In that band there were six men, five of them in their thirties, five women who seemed much younger, and one woman who was very old. There were also three young boys and three babies, two girls and a boy. We guessed from the looks of the people—and later found that we were right—that the band was a small extended family. The old woman seemed to be the key figure of the band, for with her were her two sons and three daughters, their wives and husbands, and their children. The sixth man—a boy, really—did not seem to belong in this tightly woven group, for he was not married, being too young; he seemed too young to be the child of the old woman, though too old to be her grandchild, and I wondered who he was. Witabe's father was not there, and on that trip we did not find him.

142 The three sisters of the band were all arrestingly beautiful. They looked alike, with very fine faces, slender features, large eyes, and they all wore handsome white bead ornaments. Heavy eyelids, set off by the pronounced, delicate bones of their faces, made them look of uncertain race, or like houris, and their slender bodies with skins slightly wrinkled made them seem of uncertain age. Perhaps the sun had made the

9: Thomas T-5 (1951-1955)1959
FX10 Bushmen FX10
GiKwe

wrinkles, perhaps they were older than they seemed. They 142 glared coldly at us with jealous, narrowed eyes and held their heads back like three cobras, quite unlike their brothers' wives, young girls, unmistakably Bushman, who did not look at us at all.

The men seemed very big and heavy, with a lot of muscle and fat on their bones for Bushmen. Gai came right out and asked them how it was they looked so well, and they answered with the usual Bushman pessimism: "We have some meat here but we have no water. We may look well, but we are hungry."

Gai sat down beside them with his back to them, and as 264 he talked he pulled his breakfast, which was a biscuit that we had brought with us, out of his hunting-bag. He took a big bite, causing the eyes of all the newcomers to open. "Gai is a great captain now," said William, the interpreter, in Afrikaans. "There he is eating European food." The man who sat next to Gai and who seemed to be the oldest began to laugh a hard, humorless laugh, stretching out his hand at once for the biscuit. Gai sighed and went on eating indifferently, but the man, who could hardly contain his envy, laughed his long, dry laugh again, edging crablike closer to Gai until his outstretched hand was almost at Gai's mouth. Gai broke off the largest part of the biscuit at last and handed it inconspicuously under his left arm to the man, who had a bite, passed it to the other men, who also had a bite and in turn gave it finally to the women, who each ate a morsel very suspiciously. The man beside Gai laughed on and on, watching Gai from half-closed eyes, but Gai, who had a great deal of self-possession, did not seem disturbed.

Presently the smell of the cornmeal cooking filled the air, 800 and the sound of its bubbling in the pot caused the man to stop his laughing and everyone else to talk pleasantly at last.

● 142
291

Gai was afraid of us at first. He listened carefully to everything we said, but he would not speak.

Even among her own people Tsetchwe was lonely, for in her band there was no young woman but herself.

142
291
162
854
301

[p. 112(B)]

9: Thomas T-5 (1951-1955)1959

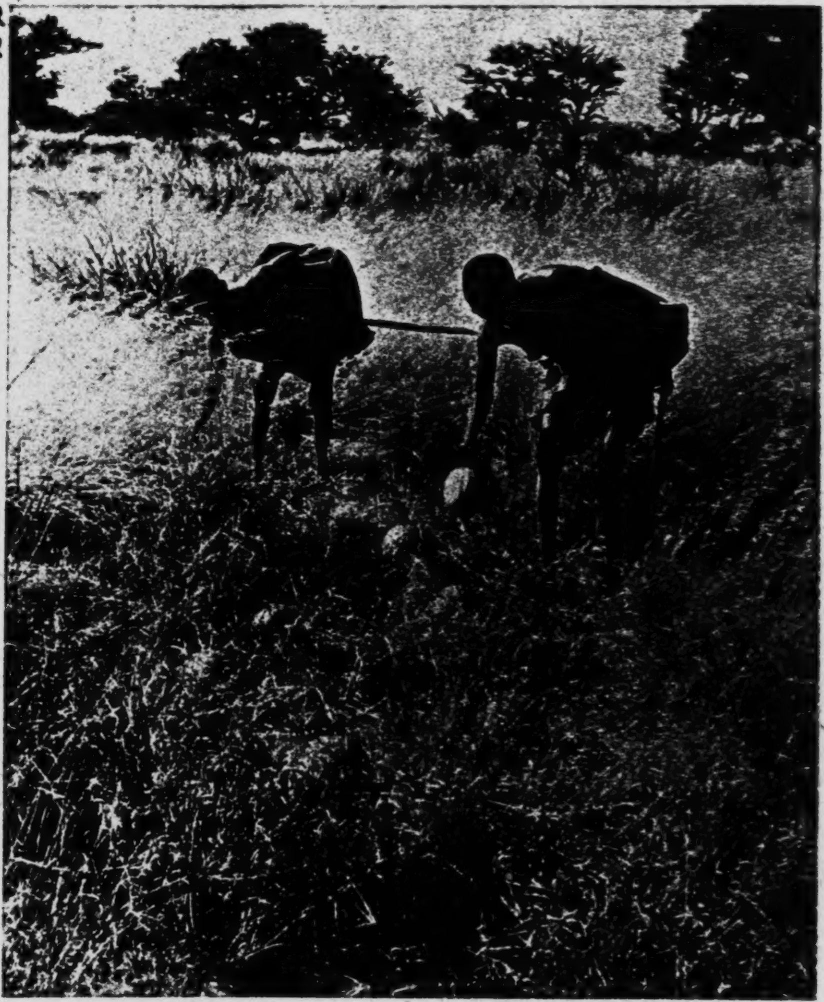
FX10 Bushmen FX10

142 ●
516
262
222
137

Ukwane eats a tsama melon, the source of food and all water for Bushmen during the drought.

[p. 112(c)]

222
● 142
516

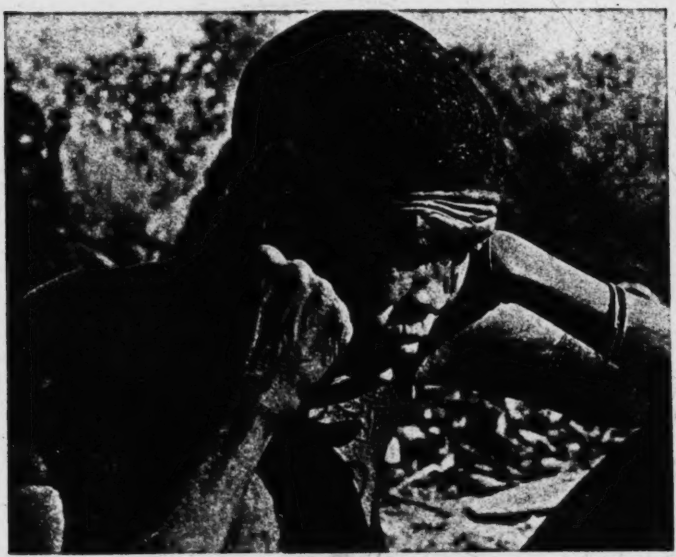


Tsama melons, on their vines, are almost hidden in the yellow grass, but Dasina and Twikwe find them.

[p. 112 (D)]

9: Thomas T-5 (1951-1955)1959

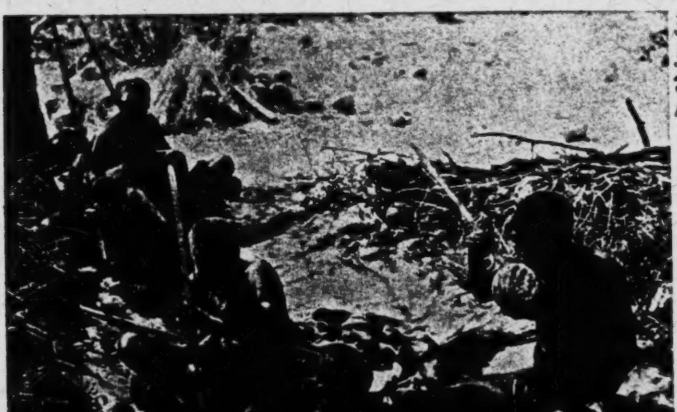
FX10 Bushmen FX10



142 ●
301
261

Twikwe was a lanky old woman. She sometimes wound a medicine string around her belly to ward hunger away.

This is Gai's house, this bare sand
under the branch of a tree.



342
516
264
412

[p. 112(E)]

9: Thomas T-5 (1951-1955)1959

FX10 Bushmen FX10

854
●142
291
516

He climbed to her shoulder and stood there triumphantly without holding on, gazing around like a child on a hill.

[p. 112 (F)]

9: Thomas T-5 (1951-1955)1959

FX10 Bushmen FX10

142
291

The jealous men from Okwa.

[p. 112(G)]

609 spearheads, tobacco and pipes, salt and candy and all the
123 water their containers would hold, all they could drink, and
even enough water to wash in, for we had enough to take us
to a waterhole a few hundred miles away where we could fill
● [142] our drums. They did wash. Gai washed his whole body and
emerged a shining gold. The others washed their arms and
[834] faces, modesty preventing their washing the rest, leaving
them with golden arms and oval golden masks.

Tsetchwe was pleased with her presents—she hung her white beads in her hair and wrapped herself in the blanket, which, she said, was far softer than leather and which would not get stiff in the rain—but she did not seem happy. She spent the evening sitting beside me, for though we could not talk much with each other I knew that she liked me. "I will cry when you are gone," she said.

576 The two horses, formed by the six young boys, came pranc-
526 ing by, the riders riding loosely, the front feet of the horses galloping but the hind feet, because of the heavy load, trotting up and down. One horse disintegrated in front of us and the young boys who had formed it came forward slowly. The rider, a young boy from Okwa, seemed to want to ask me something. He was very shy, but finally he mustered his courage. "Are you a woman?" he said.

576 Ordinarily, he would have been too polite to ask a personal question, something which Bushmen almost never do because to them asking questions implies distrust, but it may be that on the day before our departure he had found his curiosity impossible to resist. Tsetchwe frowned at him, but I said: "Yes, I am."

The horse had been arguing with the rider, and the two boys who had been the front and hind legs seemed quite triumphant. "We told you so," one said.

Kung

into their scherms, and in the morning there was a lake of 132
shining water on the pan and lilies growing everywhere, where
only their dry leaves had been before.

After that the rain came often. Some weeks it rained a little 132
every day, some weeks the rain became torrential and flattened 136
the Bushmen's grass scherms, but it made the veld rich
and green, with flowers everywhere and all kinds of fruit,
which grew on trees and stalks and bushes. The pan became
the home of shore birds, marabou storks and flamingos. Leopards
and lions drank there, game antelope waded through it,
leaving deep tracks in the mud, and the Bushman children [515
sometimes danced in the shallows, their feet making flashing, 142]
rhythmic splashes, or bathed themselves until their skins were
shining gold.

One night I went to the werf with a lantern and suddenly
found myself beset by insects flying all around me, attracted
by the light. It was the mating flight of white ants, which
had come out of the ground in great numbers and now filled
the air. The Bushman men were away on a hunting trip, unfortunately, [222
but the women came to the light as quickly as 262]
the ants and began at once to catch them and stuff them into
their mouths, saying "*gurico gum*" as they did so, *gurico* being
the name of the ants and *gum* the word used for candy,
for sweet gum that oozes from the trees, and for sweet caterpillars.
Much faster than the women could eat, more and
more ants came flying in a swarm as thick as a blizzard and
already the ground was white with wings, for the ants, throwing
themselves to the earth, would drop their wings instantly
and begin to mate with each other in twos, in threes, even
forming in great circles that turned as the ants ran scurrying
to keep their positions, each one mounted with its forefeet on
the back of the ant before it, pushed on by the ant behind.
Sometimes an ant would fail to shed its wings and, finding

844 When the young woman came back to the werf with her baby she sat down and calmly washed the blood from her legs with water from an ostrich eggshell. Then she lay on her side to rest with her baby beside her, and covered the baby from the sun with a corner of her kaross. She put her nipple in the baby's mouth and let her try to nurse. The young woman still said nothing to anyone, but she did open her kaross to show the baby, and one by one we all came by to [142] look at her, and she was not brown, not gold, but pink as a pink rose, and her head was shaped perfectly. At the bottom of her spine was a Mongolian Spot, dark and triangular, and her hair, which she shed later, was finely curled and soft as eider down.

The father had been away, but he came home a little later and sat stolidly down on the man's side of the fire, his hands on his knees. He pronounced the baby's name softly to himself. Later, when he had no audience, he slipped his finger into the baby's hand. Of course the baby grasped it strongly, and the father smiled.

302 accumulating dust had turned him black. When the rains
came that year he had scrubbed himself with sand and water
and had turned paler than the palest gold. No one had
[142] recognized him for a minute and then people had made fun of
him, so he had let his coating accumulate again.

361 That night the old man, Lazy Kwi's father-in-law, decided
that his band would move with us to Nama, a pan near
Gautscha Pan, for he and Lazy Kwi believed that if we went
there they could help us find more bands of Bushmen whom
we had known. No one, he said, was living at Gautscha this
season and the people who belonged there were scattered
through the veld because the rains had been so good that
there was food and water everywhere. We said that we would
222 leave in the morning to begin the search, but the old man
hesitated to agree and finally told us that in the morning he
had planned to rob a bee tree, but after that he would be
free to go. As he had hoped, the following morning we went
with him on his trip for wild honey.

The bee tree was in a little forest about two miles from
Gam, a forest filled with tiny yellow leaves and tiny seed pods
blowing from the trees and scattered all through the grass,
which in places had been plowed up by a wild pig rooting for
bulbs. Because it was early in the morning and frosty, turtle
doves were singing and the clear air was filled with their
voices. Honey is always gathered at the coldest time of day,
for then the bees are dull and stupid and it takes them a
long time to collect their wits. The old man and Lazy Kwi
cleared some grass and lit a tiny fire; then, squatting beside it,
they warmed their hands, waiting for it to burn well, for they
would use its smoke to numb the bees. Lazy Kwi's wife and
222 her sister had come too; they did not join the men by the fire
271 but walked off in the bush, gathering sour berries for their
breakfast. The women in their wanderings found a hollow

9: Thomas T-5 (1951-1955)1959

FX10 Bushmen FX10

133
137

Long reeds almost filled
the waterhole at Gautscha.

516
● 142
291
534

Alone at his fire, Ukwane
plays a mood song.

[p. 176(A)]

431
301
302
● 142
291

I sometimes received presents of gum from trees, or soft, sweet caterpillars.

Toma the leader.

411
142
291

[p. 176(B)]

9: Thomas T-5 (1951-1955)1959

FX10 Bushmen FX10

593
142
291
516

Crooked Kwi and his wife, who once had run away from him.

Dikai made a bow from a branch, an arrow from a reed, and gave them to her younger son.

868
854
411
301
302
142
516

[p. 176(C)]

301
291
142

302
142
291
534
516

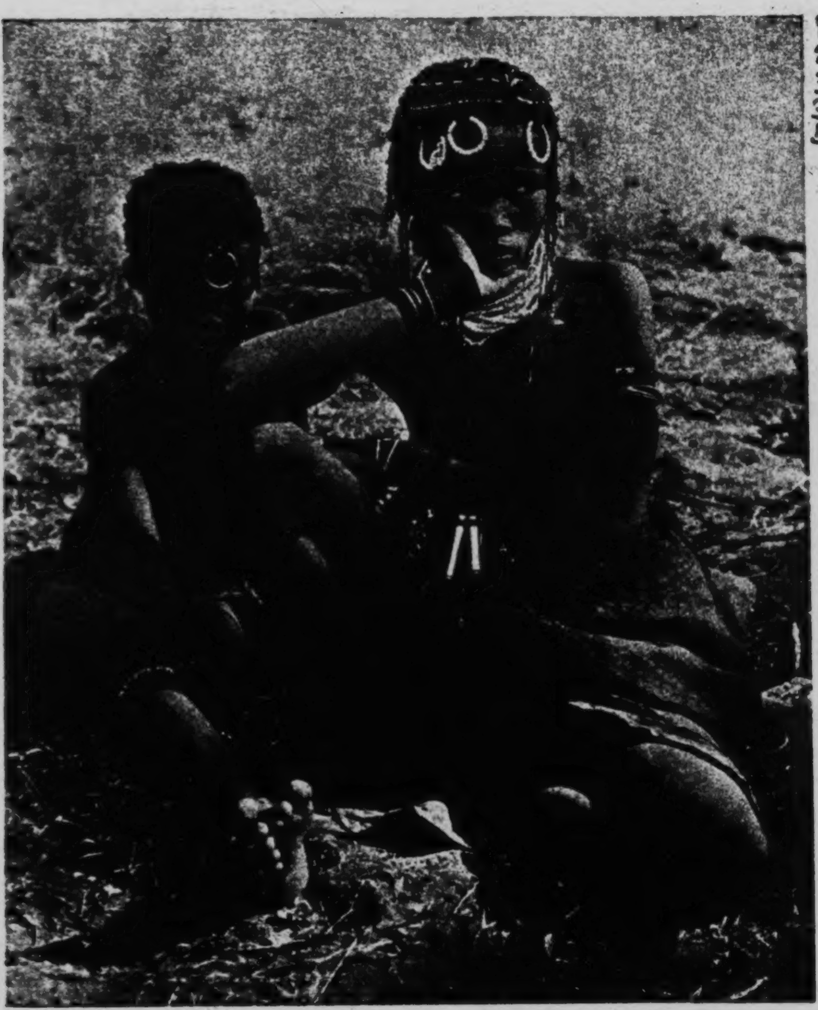
Toma's son, the new owner of Short Kwi's crown of badger hair.

The young musician—the lonely, brooding man who played the guashi.

[p. 176(D)]

9: Thomas T-5 (1951-1955)1959
FX10 Bushmen FX10

142 ●
291
301
302
516

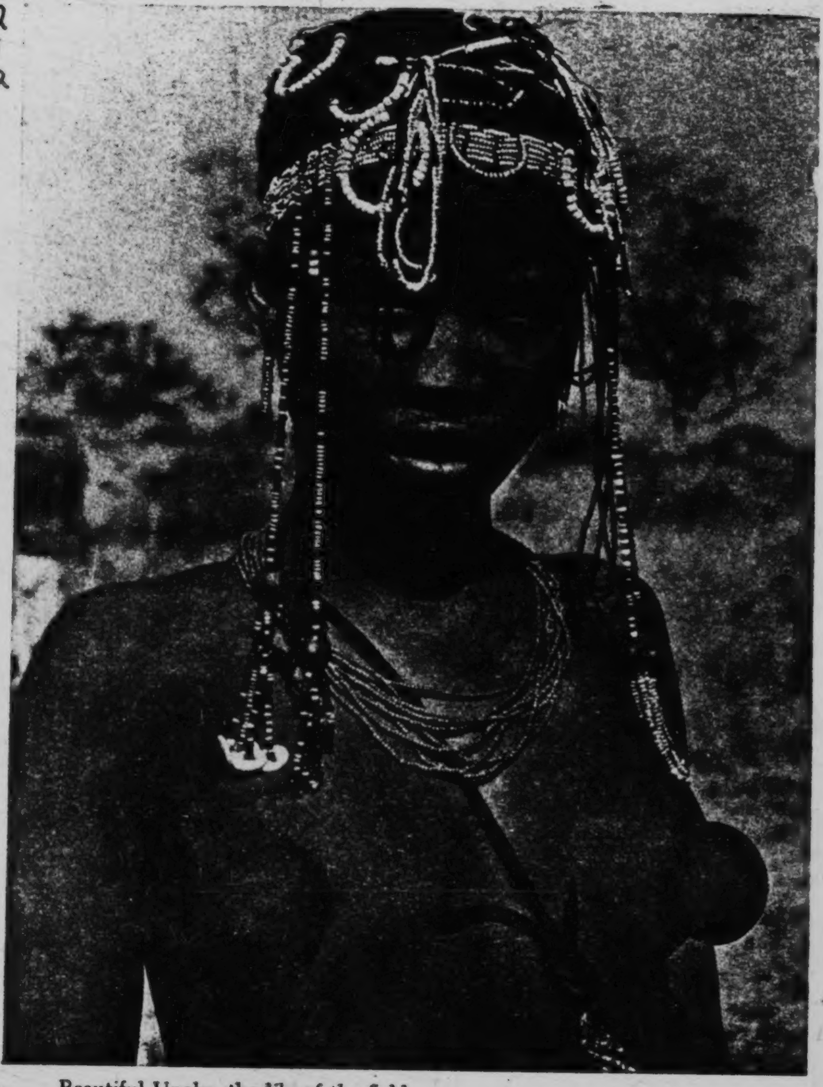


Beautiful Ungka's cousin, and the little girl who was content to follow her and be her handmaiden.

[p. 176(E)]

9: Thomas T-5 (1951-1955)1959
FX10 Bushmen FX10

142
301
302



Beautiful Ungka, the lily of the field.

[p. 176 (F)]

[p. 176(G)]

Tu made Norna clothes of ostrich-eggshell beads, an art taught to Bushmen by the gemsbok people.

142
291
301
302
237

The old man who had never shot a buck, who had never married, now almost blind, too thin, and without people.

142
291
516
589
888

ple, according to custom, and, when the old headman died, 159
took over the leadership of the people in the area. He was 622
not the true headman—his position would not be inherited 591
by his son, for headmanship is passed only from father to
son—but he was recognized as headman while he lived and
it was a great honor to him that this was so.

Tu's brother was the rightful headman of Gautscha, but 622
he had abdicated to live with his wife's people in the north.
Her elder sister's husband, a man named Gao Big Feet, also
had a right to the leadership in that his wife, Dikai, was older
than Tu. But neither ever contested Toma's position as
leader, for it was not a position which Toma held by force
or pressure but simply by his wisdom and ability, and people
prospered under him. No Bushman wants prominence, but [431]
Toma went further than most in avoiding prominence; he
had almost no possessions and gave away everything that
came into his hands. He was diplomatic, for in exchange
for his self-imposed poverty he won the respect and following
of all the people there. He enjoyed his position, and, being [578]
strangely free from the normal strains and jealousies of Bushmen,
he saw justice clearly and hence he led his people well.
At Gautscha his werf had been right beside the werf of his
father's murderer, for Toma was friendly even with him.

Toma had a short, stocky body and a shock of tangled 142 ●
hair. He was strong, too, and very co-ordinated, so that every 159
motion he made was quick and controlled, and not a gesture 622
of his was wasted. As a result of this enormous and unconscious [151]
control, accidents almost never happened to him. His
face was broad, lined with many deep wrinkles at the corners
of his eyes and mouth as though from smiling, though
it was not from smiling that he got them but from years of
squinting at the sun. His expression was usually dark and
wondering, his forehead drawn intently into a frown, but

142
159 sometimes he would abandon his gravity and laugh a high,
622 reaching laugh that one could hear from far away, a laugh
that came from his very soul, or, as Bushmen say, from his
stomach. He listened diplomatically and intently whenever
159
153 he was spoken to, staring at the gound, and had a habit of
echoing, in a loud falsetto voice, the important phrases of
every sentence he was told.

"We went to Keitsa Pan," someone might say to him.

"To Keitsa," Toma would reply.

". . . and we slept there, but the blind flies were very bad . . ."

"Oh, bad, bad . . ."

". . . but in the morning we saw two porcupines . . ."

". . . yes, porcupines . . ."

". . . and we killed them there. We made them cry . . ."

". . . made them cry . . ."

". . . made them cry."

159 Toma was considered to be very fortunate in his marriage.
142 Of course it was through his wife, Tu, that he gained the
leadership of the Gautscha people, his life free in the veld
rather than in serfdom, and his two young sons, but besides
all this his wife was beautiful, having a smooth face and
great, clear eyes like a cat. Also, she was five feet tall, considered to be a very desirable height, and although no Bushman
has ever been too fat, Tu was not too thin and her arms and
[304] legs were round. She had soft blue scars curving on her forehead which made her eyes seem to lift at the corners, and
blue scars on her thighs that showed when she walked. Her
159 chief virtues, in the eyes of Bushmen, were that she deco-
577 rated herself with ornaments in her hair and kept her hands
[515
301] and face washed, thus demonstrating that she cared what she
looked like, rather than letting herself go now that she was
married. To show that she observed propriety, cared what

We had met him for the first time at Gautscha. He had 159 come in from the veld one night to visit his brother, and we 224 had met him in the morning. Short Kwi was a young, small man, shorter than his wife and so slender that he looked almost like a child. With long, light feet that took him everywhere, with heavy thighs but light calves like the thin shanks [142] of a greyhound, and with a narrow, deep chest and lungs that never winded, he was obviously built for hunting. In the rainy season when the veld was soft and muddy he often hunted with only a spear and ran the great antelopes down, for though their hooves sunk and split in the mud, causing them eventually to tire, Short Kwi never tired and his strong legs bore him after them relentlessly, sweeping him down the long plains like a wind of death.

His life in the veld seemed lonely, but I doubt that it was; he had his wife, who adored him, for company in the evenings, and although she may have missed companionship more than he did, they were both shy, both quiet, and it may [573] be that they both enjoyed their life apart. Short Kwi hunted most of the time. He would hunt on and on and when word would reach the large band of his wife's family that he had killed, the band would go out to where the animal was, dry the meat, and eat it. When there was enough meat Short Kwi would rest, would relax in the sun, would talk with his wife or make himself a new skin bag or garment, and when word would reach him that all the meat was gone he would move again. The men of his wife's family hunted too, of course, but never as successfully as he, yet his great ability set [578 him so far apart from ordinary mortals that for once the 554] Bushmen forgot their jealousy and agreed that he was the best hunter the Kalahari had ever known.

301

It is a custom among Bushman hunters to cut strips of skin 224

621 The other werfs were much nearer us, as the people wanted
574 to keep an eye on each other, to see that we gave food or presents to all when we gave to one, but also because they enjoyed being together and wanted to be able to visit each other quickly at any time at all. Next to our camp on one side was Lazy Kwi's werf, and on the other side lived Toma with his wife and Gao Feet with his wives. At the far end of their werf lived Crooked Kwi with his wife and the old grandmother. They were between our camp and the pan, and beside their werf ran a pathway, the way used by the people on the other side of us to reach the water.

593 On the other side of the path, in the shade of a tree, lived one more small band, the band of a young man of perhaps thirty, who lived with his twelve-year-old son and his eight-
[583] year-old wife, whom he was nourishing while waiting for her to grow. These young people had chosen their spot because
[591] the little girl was Gao Feet's daughter by his first wife and was still so young that she wanted to live near her mother. She was a sad little girl with a grave face and troubled, wondering eyes; in fact, all these young people were very grave and sad—the young man's first wife had died and he now had no one to care for him because the little girl, his new wife, spent a great deal of time with her mother and he was left alone. The son was lonely too, having no mother and no one to care for him except his sad young father. His father was too troubled, too preoccupied, to be a companion to him, his little stepmother was too young, and he spent most of his time sitting on a rise of ground overlooking the werf where he lived, watching other people going by.

[142] The little girl took after her mother, Gao Feet's ugly wife, but her two men, her husband and her stepson, were a family
533 of great beauty. Both had wide, grave eyes and golden skins, and both were musicians, but the young father himself was

9: Thomas T-5 (1951-1955)1959

FX10 Bushmen FX10

Kung

them with his moods and when he stopped playing and they 533
went away, they, too, were brooding.

Many young people had come to Nama, and together they 857
made Nama very gay. The boys played a game with wands, 526
throwing the wands at a hummock of ground and watching
them bounce off and sail into the grass on the other side, the
nearest that Bushmen come to a competitive game, for the
young boys like to see whose wand goes the farthest.

The girls played a singing game with a melon. They would
stand in a row that formed a half-circle dancing in place while
the girl at one end would spring into the middle of the circle
and toss a melon to the girl next to her in line. The game is
accompanied by a rapid, intricate song of several parts sung [533]
in falsetto voices, as pretty to hear as the game is pretty to see,
for the girls dance with their arms and heads as well as with
their feet, like the dancers of Bali.

At that time there were only two adolescent unmarried 882
girls at Nama. One of these was Beautiful Ungka, the other
was her cousin, and they both lived with the cousin's parents
at one of the werfs of the people from Gam. They were both
extremely beautiful and they were lilies of the field. Since
they were their parents' only children, they had no younger
brothers or sisters to mind, and did nothing at all from one [572]
day to the next but adorn and amuse themselves, and this
they did together, for they were the best of friends. They were
straight and slender, with pale-gold skin not yet darkened and [142]
weathered by the sun of the veld, and they had flat bellies and
high, small breasts. Beautiful Ungka had nipples like knobs,
rounded like balls. Both girls wore ornamented aprons, soft
leather capes—the best that there is. Many bead ornaments 302
hung from their hair and swung when they walked, and almost hid their handsome faces.

11:Marshall E-5 (1950-1955) 1958
FX10 Bushmen FX10
Kung

301
● 142
[534]

Hunter's life is not all hunger and privation. *Above*, a young !Kung belle amuses herself with stringed instrument.

But age comes soon: bracelets, beads and pendants that adorn this mature !Kung matron contrast with seamed face.

[p. 16]

11: Marshall E-5 (1950-1955) 1958

FX10 Bushmen FX10
Kung

FEWNESS OF NUMBERS in desert's vast expanse may help account for characteristic !Kung habit of huddling together in company, as in case of this group of children, *above*. Items of personal adornment – eggshell disks, often in strings with seed beads, and hoops of traded wire – show parental affection.

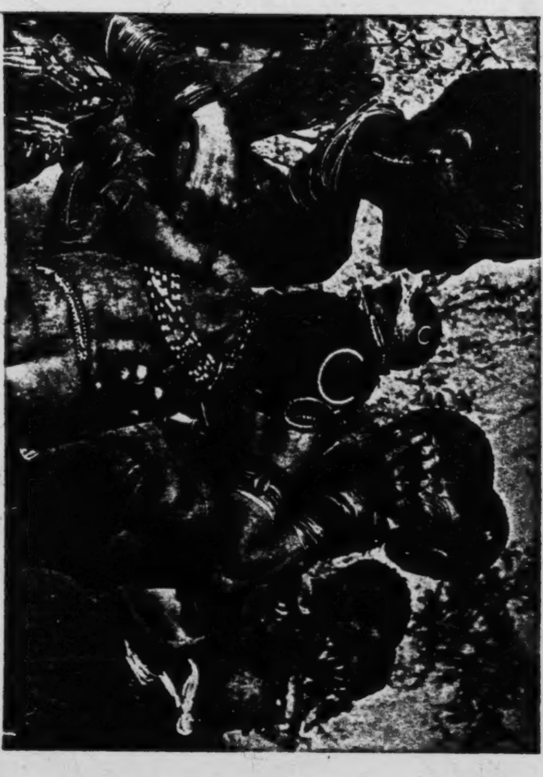
[p.23]

301
571
142

11: Marshall E-5 (1950-1955) 1958 FX10 Bushmen FX10

Kung

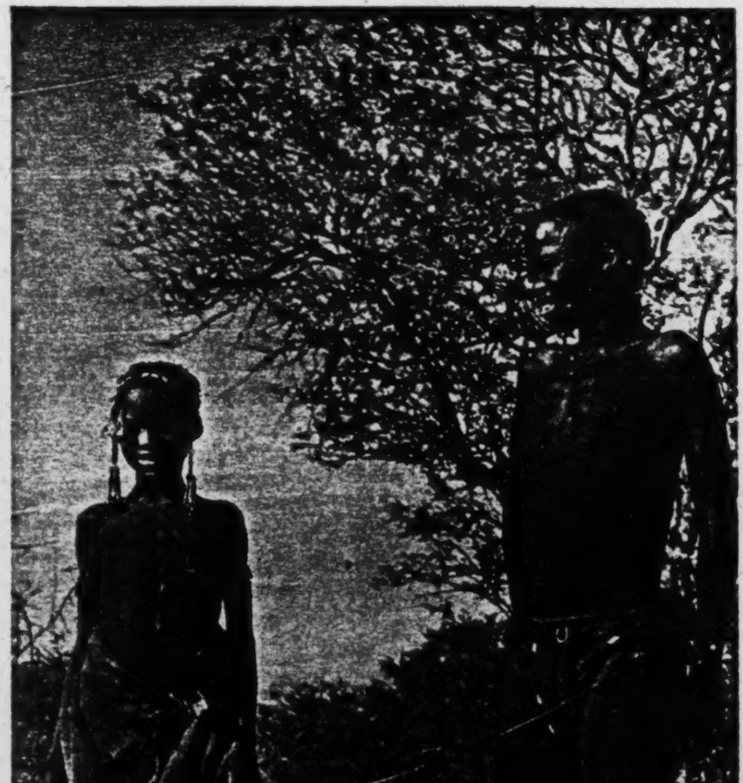
301
571
● 142
853



HUDDLING HABIT is noticeable again in this gathering of women and children at a !Kungwerft. Well-ornamented child, *foreground*, is still at breast.

[p. 24]

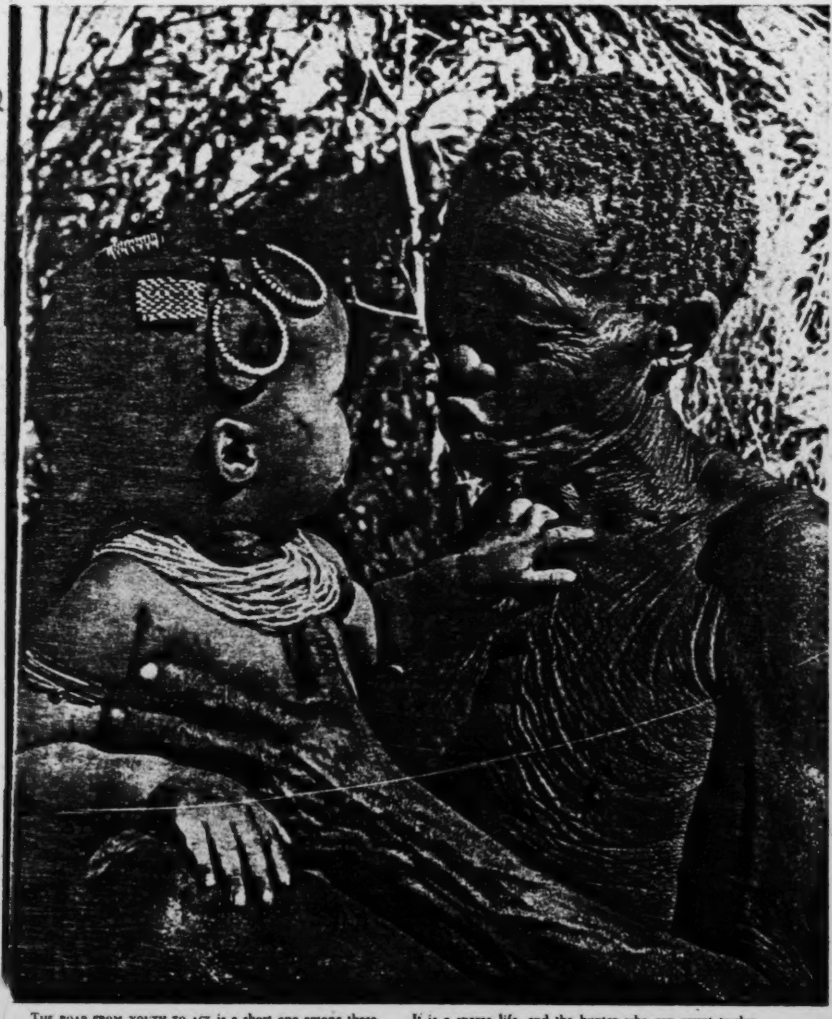
291
142
582



YOUNG COUPLE stands, shyly smiling, at outskirts of *werft*. Marriage among the !Kung, as in the case here, often occurs before the girls reach puberty.

[p. 27]

142
301



THE ROAD FROM YOUTH TO AGE is a short one among these desert dwellers, as witness the father and daughter here.

It is a sparse life, and the hunter who can count twelve antelope killed in a year feels he has had a good season.

[p.86]

142
301
516
[212]
[306]

[151]

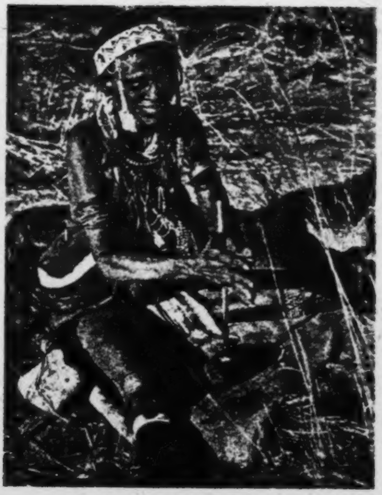


Fig. 5. Old /Gam making ostrich egg-shell beads. Some cowrie shells from the South Seas (via New York) dangle among her ornaments

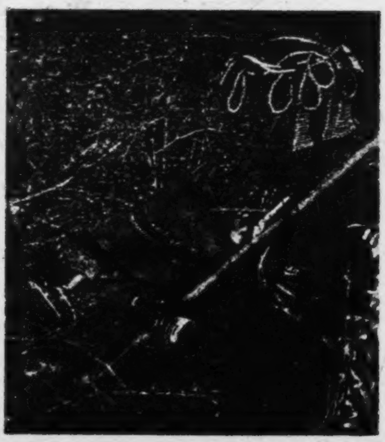


Fig. 6. Powers of observation are highly trained. This girl had seen, in the tangle of grass, a dry, hair-thin, brown vine stem which revealed that there was an edible root to be dug

342
516

[142]
[301]

Fig. 7. Talking in the afternoon

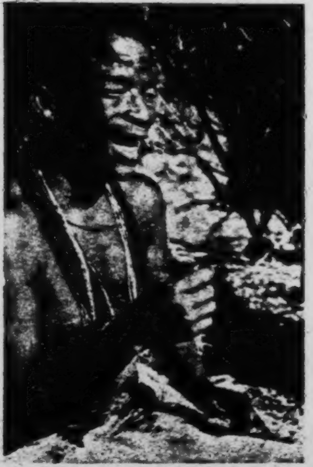
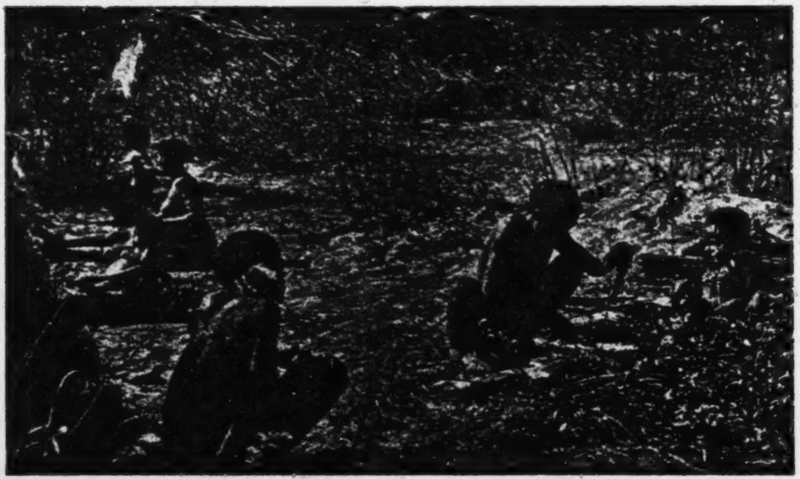


Fig. 8. ≠Toma laughing

[p. 240-B]

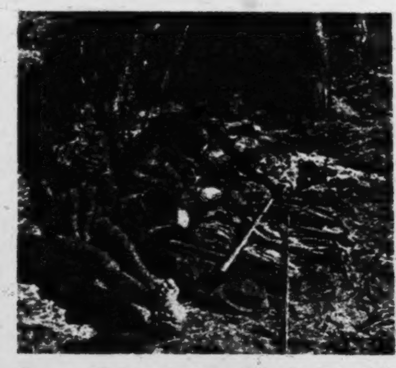


264
516

FIG. 15. It is polite to sit aside and wait to be asked to share someone's portion of meat

142

FIG. 16. A father and child in anxious reverie



422

FIG. 17. All the possessions of Gao Medicine (left) and his wife, Di/ai

[p.240-E]

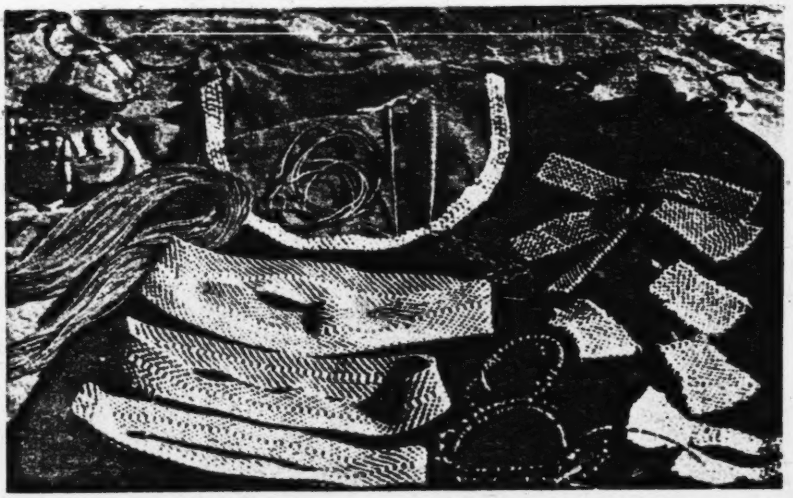


FIG. 18. Traditional /Kung women's ornaments. The genital apron (upper middle) has a border of ostrich egg-shell beads sewn on. Some traded wire, an awl, and a sheath for the awl lie on it. The head-bands are of three widths. The tortoise-shell cosmetic containers (for sweet-smelling *sa* powder) are ornamented with beads. There is a roll of fibre cord (left). The bead head ornaments (to the right) are associated with sex. The rectangular ones are said to be male; the triangular ones female

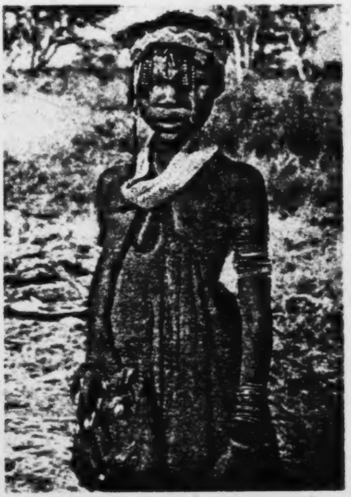


FIG. 19. A girl wears a headband made of traded beads around her head and a traditional Bushman ostrich egg-shell bead headband around her neck. Her bracelets (lower arm) are made of grass and of vegetable fibre cord

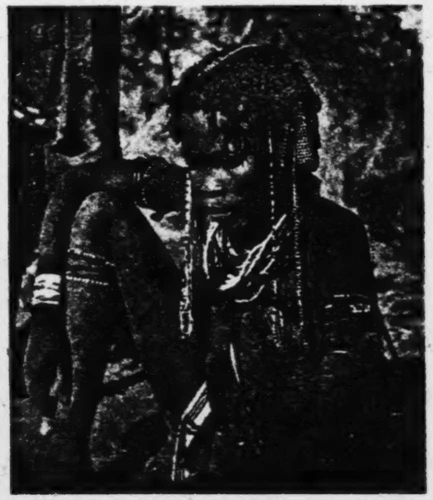


FIG. 20. The upper arm armlets with tabs are made from forehead hide of large animals which a young hunter has killed for his bride. Those from male bucks are worn on the young woman's right arm; those from female bucks on the left

516

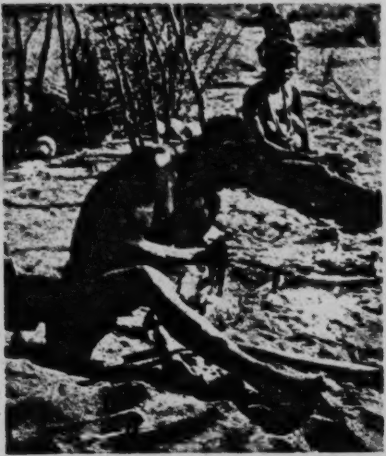


FIG. 21. Gao, Beard hammers out a spear blade. His young second wife sits composedly beside him at the family fire. She did not build a scherm for Gao when they settled this time. The upright sticks around their grass bed serve to symbolize home. The object which looks like a club behind Gao is an adze handle. His fire scraper lies in front of him

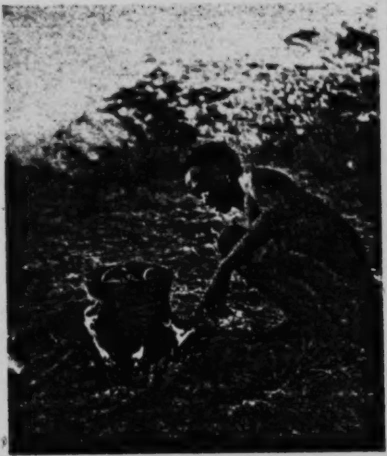


FIG. 22. A man cooking meat in a Bantu clay pot (obtained by trade)

[415]
[439]

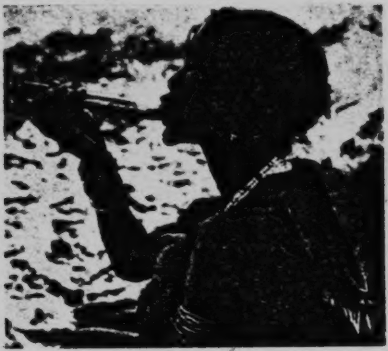


FIG. 23. Smoking a soapstone pipe

276
142

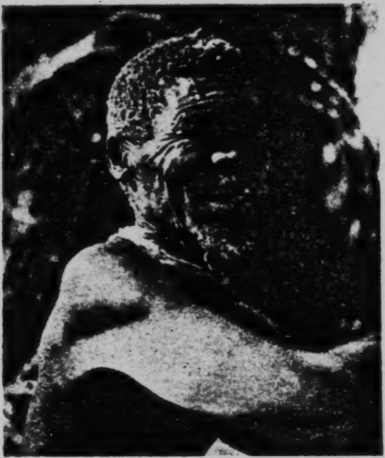


FIG. 24. Old Demi, grey-haired, is in his seventies. We figured his age roughly from his telling us that when he was a young adult he was, by chance, an unwilling witness lying under a log to a skirmish of the German–Herero war

857

14. The boys imitate a trance

142 ●

15. Gao, the medicine man who sees //Gauwa as a grey mist

[p. 228 (I)]

142
301
302
622

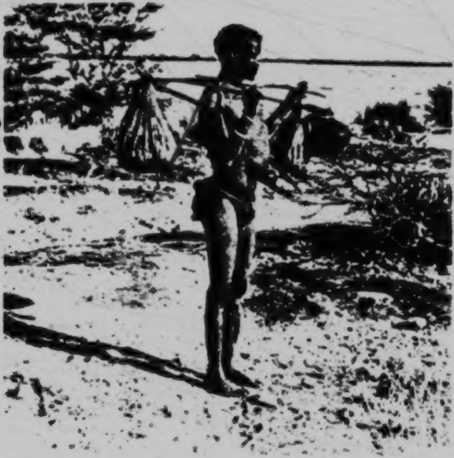
A Headman ≠Toma is the leader of the main Guatscha band.

142 males average approximately five feet, two inches) with yellowish brown skin that becomes heavily wrinkled in old age. They have very little facial and body hair, and their short, black, head hair is so curly it spirals into peppercorn tufts. The Bushman face is flat and triangular; the brown eyes are set rather wide apart. A variety of eye folds narrow the apertures of the eyes. The nose is extremely broad with a very low bridge, the lips are everted but not protruding or only slightly so, and the ear is somewhat square in shape with a deeply rolled rim (helix). The Bushman body and limbs are slender; the frame is delicate. A notable feature is the inward curve of the small of the back. The penis is semierect. In women there is what is called the "Hottentot apron" (elongation of the *labia minora*). Steatopygia (fat on the buttocks) is invariably mentioned in the literature as one of the important physical characteristics of Bushman and Hottentot women and recorded as being very prominently developed in some. By comparison with the extreme examples that are seen among some Hottentot women and in illustrations, the northern and central Bushman women whom we observed did not have marked steatopygia, although some had buttocks that could be called plump.

197 LANGUAGE • Bushman languages and those of the Hottentots are classified as a language family known as Click or Khoisan (Greenberg 1955:80). [194] Clicks are so unusual as to be almost unique to Bushman and Hottentot (they occur also in two East African languages—Sandawe and Hatsa—according to Greenberg) and are so distinguishing a feature of these languages that much attention is given them.

194 197 The Khoisan clicks, striking implosive sounds, are velaric suction stops (Heffner 1960:119; cf. Beach 1938:73 ff.). The northern and central Bushman languages have four, made with the tongue, as follows: the dental (/), lateral (//), alveolar (!), and palatal (≠). The southern Bushman lan-

133
142
291
301
482



On the Move A Bushman hangs his possessions on a carrying stick and thrusts his assegai under the stick in back to distribute the weight onto both shoulders.

222 When the people go to gather mangettis or tsī, the men always ac-
462 company the women and help to gather and to carry the heavy loads—as
much as they possibly can—back to the water hole.

Though the men help, especially with *tsī* and mangettis, gathering and
digging are the work of women and the work that takes up the greater por-
222 tion of their energy and time throughout their lives. Their digging imple-
[412] ment is a sharpened, unweighted stick about three feet long. When we were
[101] living with the Gautscha bands at the Gautscha water hole in the dry season,
the women went to gather every day or every second or third day, depending
on the distance and on how much food they could carry back. They would
plan which patch or fertile area to go to and start out in small groups, some
[484] to one place, some to another. They would walk five or ten or fifteen miles
[361] to their destination and then pick berries or dig roots, which may lie two
feet or more under the ground, until the mid-afternoon, and then start back
[854] to the werf (campsite) at the water hole. They carry their infants tied to
[482] them, small children on their shoulders, and the loads of veldkos in the
[372] bulges of their karosses (skin capes). When they near the werf, they pick
up two or three logs for the night fires.

The veldkos that each woman gathers belongs to her and with it she
feeds her own family, sharing with whatever relative or friend she wishes.
Custom does not require her to share it in a systematic way with others as
252 meat must be shared. She cooks her veldkos in the coals and hot ashes,
264 pounds fibrous roots and hard berries in her mortar, and serves the food to
her family as a family meal, usually in the evening. During the day, how-
ever, people may cook and eat little snacks at odd times.

222 Although there are numerous kinds of veldkos, we must not give the
433 impression that there is a great abundance. In fact, the opposite is true. Food
731 is scarce all over the arid Kalahari, where drought is the scourge on all—the
cattle raisers, the dry farmers, and the gatherers of the wild foods.

128 There has been much intermarriage in the Nyae Nyae region. Families
166 therefore may have close relatives—with whom they have the right to live—
[582]

15: Marshall E-5 (1951-1961) 1965

FX10 Bushmen FX10

!Kung

755
535
142
291
301
302

The Ceremonial Curing Dance A medicine man is going into a trance.

755

to cast the sickness out, hurling it into the darkness back to *//Gauwa* or the *//gauwasi*, who are there beyond the firelight, with a sharp, yelping cry of "*kai kai kai*."

The medicine men are usually only in shallow trance at this point, but, when the curing has been going on for some time, they begin to reach a state of patterned frenzy. They no longer go around to the people, their spasms of grunting and shrieking become more frequent and violent, their stomachs heave, they stagger and sway. They rush to the fire, trample it, pick up the coals, set fire to their hair. They believe that fire activates the medicine in them. People hold them to keep them from falling and beat out the flames. The medicine men rush out into the darkness, where *//Gauwa* and the *//gauwasi* are lurking. They hurl burning sticks and swear at them. "Filthy face!" they screech. "Take away the sickness you have brought. You are bad. You want to kill us. Go away. . . . *Hishe*, you are a liar. This man will not die." At this point the medicine man may fall down in deep trance and appear to be unconscious or semiconscious, with eyes closed, stiff as a board, unable to walk. This stage of trance may last only a brief time or may continue for hours—even into the next day. Gradually it is resolved and the medicine man takes up his normal activities. [372]

[274]

The !Kung believe that at the time of deep trance the medicine man's spirit leaves his body and goes out to meet *//Gauwa* and the *//gauwasi*. They call this "half death." It is a dangerous time. The women must continue to sing the medicine music. The man's body must be watched over, rubbed, and kept warm by other medicine men who are in less deep trance.

755
535
154

The violence and excitement of the ceremony have the effect, as in a

[p. 272]

II. THE PRESENT STATUS OF THE BUSHMEN

Defining Bushmen

101 Bushmen may be defined racially, linguistically or
culturally. None of these criteria used alone will give a
142 satisfactory definition. If the presence of "Bush" physical
144 type is used as the criterion of Bushman status, then some
members of Hottentot tribes would be incorrectly included,
and members of the hybridized Bushmen peoples of Ngamiland
197 would be excluded. Similarly the presence of a click non-
121 Bantu language would include not only Hottentots again, but
also the Hottentot speaking negroid Bergdama of South West
224 Africa, and the Hadza-Sandawe peoples of Tanganyika. A
222 464 strictly economic criterion, such as the presence of a hunting
648 and gathering way of life would arbitrarily exclude the many
241 233 thousands of Bushmen who are working on European Farms or
practicing agriculture and pastoralism.

114 A further complication in defining Bushmen is offered by
197 the recent work of Westphal (1962a,1962b,1963). He has demonstrated that the so-called Central Group of Bushman languages
of Bleek (1929) are in fact closely related to Hottentot.

10(In this paper a simple ethnic definition of Bushmen is
[114] adopted, following the lead of Joyce (1939) and Tobias (1956).
Throughout Bechuanaland, the Tswana word "sarwa" is applied to

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot
Bushmen FX10

142
304

L. Fourie

AUEN BUSHMAN
Showing initiation cuts between eyebrows

[FRONTISPIECE]
[FACING p. iii]

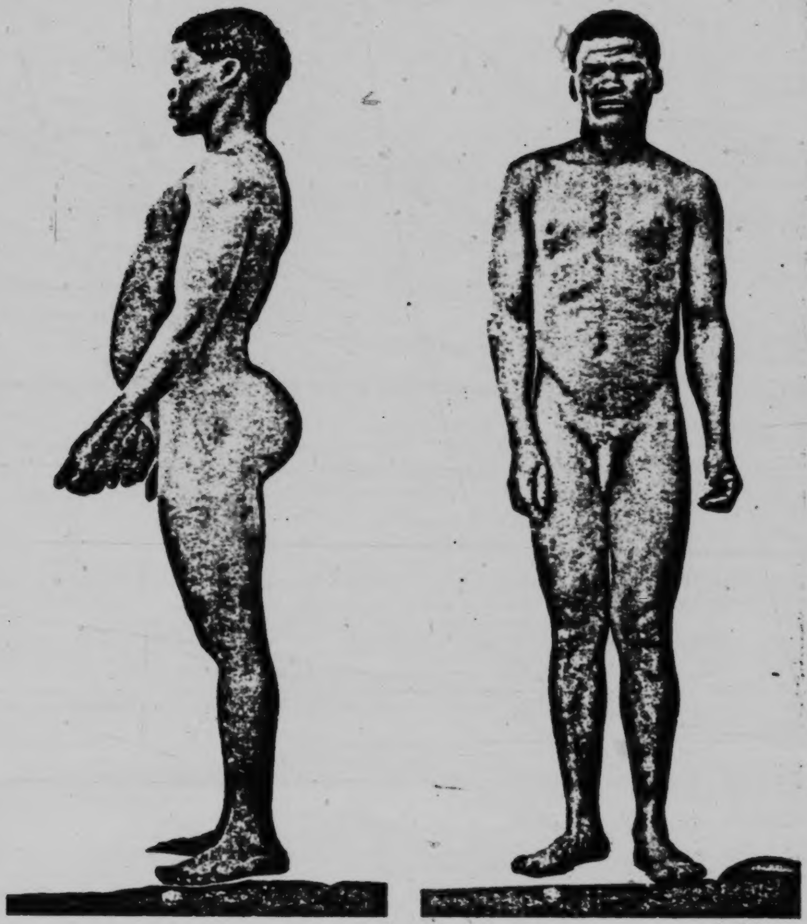
2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot

Bushmen FX10

PLATE I

142●



L. Schultze.

/AUNI BUSHMAN
From S.W. Borders of Kalahari

[face p. 32

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot

Bushmen FX10

Such individuals as I have measured ranged from 5 ft. 2 in. [157·5 cm.] 14
up to 5 ft. 9 in. [175·3 cm.]. A few were below or above these figures, but the average height may be taken at 5 ft. 5 in." [168 cm.].[1] Elsewhere he adds that "the women are usually considerably shorter than the men; those that I have measured ranged from 4 ft. 9¾ in. [146·8 cm.] up to 5 ft. 2½ in." [158·8 cm.], and he gives 5 ft. 2 in. [157·5 cm.] as their average height.[2] The Hukwe and the Galikwe apparently attain to a still greater stature. Both Livingstone and Chapman speak of individuals fully 6 ft. tall (183 cm.), and the latter places the average stature of the "MaDenassena", i.e. Galikwe, at 5 ft. 10 in. (177·8 cm.).[3] According to Seiner the members of this tribe range in stature between 162 and 184 cm.,[4] and Wilhelm says of the Hukwe that statures of between 170 and 190 cm. must be regarded as normal.[5]

These figures show that on the whole the Bushmen north of the Molopo are distinctly taller than their Southern relatives, and it is evident that the further north and east we go the taller do they become. It has been suggested by several writers that this increase in stature is due to better conditions of subsistence. It is hardly justifiable, however, to assume that the Bushmen living within or on the borders of the Kalahari Desert could obtain better nourishment than those in the Cape, where water and food supply are on the whole much more favourable. It seems rather that we must look upon the 144
pygmy stature of the Southern Bushmen as a true racial characteristic, and that the increased stature of the Northern tribes must be attributed to the influence of racial intermixture with other and taller peoples. This conclusion is borne out by several other features, of which the most evident perhaps is skin coloration.

In the Southern Bushmen the skin colour varies from light yellow 142
to brownish-yellow. In the tribes just north of the Molopo some
families are of the same colour, while others have darker tinges of 144
varying shades—a patently new mixture. The Auen, Naron, and Kung have a fairly constant reddish-brown colour, although individuals incline more to yellow or to black. Among the !O Kung, according to Miss Bleek, some individuals are blackish-yellow, others reddish-brown or copper colour, others again are almost black, although

---

[1] "The Tati Bushmen (Masarwas)," *J.R. Anthrop. Inst.*, xlvii (1917), 43.

[2] *Pygmies and Bushmen of the Kalahari*, 1925, p. 79.

[3] D. Livingstone, *Missionary Travels and Researches in S. Africa*, 1857, p. 165; J. Chapman, *Travels in the Interior of S. Africa*, 1868, vol. i, p. 46.

[4] *Mitt. deuts. Schutzgeb.*, xxvi (1913), 299.

[5] *Z. EingebSpr.*, xii (1922), 300.

● 142 lighter in shade than the Bantu of the same region; and she adds
144 that in Bushman-Bantu crosses the first generation of children may be either yellowish or blackish, while later generations, where both parents have a little Bantu blood, show the reddish-brown colour which distinguishes these Northern Bushmen from the Southern.[1] The colour of the Hiechware in the Eastern Kalahari, says Dornan, "is usually darker than in the typical Bushman, but even it is not constant. I have met individuals of the brownish-yellow colour of the Southern Bushmen, and even amongst these there were individuals of a very dark type."[2] The same range of variation is found among the North-Eastern tribes, where, however, the dominant shade is a dark chocolate colour approaching that of the Bantu.

141 It appears moreover that the light-coloured individuals in the tribes just north of the Molopo are comparatively short, while the darker
142 individuals are all of greater height. The same is probably true of
144 the Hiechware, while Kaufmann writes of the Auen that the band living at Gam, in the northernmost part of the tribal territory, consists almost entirely of proportionately tall individuals, whose colour is darker than that of the rest of the tribe.[3] If these observations are accurate, and they need to be tested by statistical investigation, they would provide an excellent indication of the lines along which the still necessary detailed study may be made of the variations produced in the physical characters of the Bushmen by intermixture with other peoples. In any case, if we bear in mind the advance of the Bantu peoples from the north-east and the extent to which the different Bushman tribes have therefore been exposed to contact with them, it need occasion no surprise that the most northern and eastern tribes show on the whole the greatest stature and darkest colour.

Seiner, indeed, definitely terms the Bushman tribes of the Northern Kalahari "Bastard-Buschleute". His general remarks on their characteristics may be quoted as a concise statement of the extent to which mixture with other peoples has taken place in this region. "Das Gebiet der Bastard-Buschleute," he says,[4] "liegt ganz in der südlichen Zone der Nord-Kalahari, zwischen dem südangolesischen Hochland und dem Kaokoveld einerseits, sowie dem Matabeleland und Nordost-Rhodesia anderseits . . . Dieses Gebiet wird durch den Okawango in einen grossen westlichen und in einen kleineren

---

[1] "Buschmänner von Angola," *Archiv Anthrop.*, N.F. xxi (1927), 48.

[2] *J.R. Anthrop. Inst.*, xlvii (1917), 42.

[3] Op. cit., 316.

[4] *Mitt. deuts. Schutzgeb.*, xxvi (1913), 283–4.

östlichen Teil geschieden. Während nun in der westlichen Bastard- 141
zone, sowie in der Süd- und Mittel-Kalahari die Buschmannstämme
mehr von Hottentotten als von Negern durchdrungen sind, ist die 142
Zersetzung der Buschmannrasse in der östlichen Zone, dem
Okawango-Sambesi-Gebiet, häuptsächlich auf die Vermischung mit 144
Bantu zurückzuführen. Der eigentliche Rassentypus ist wohl sehr verwischt, kommt aber in der Mehrzahl der Fälle doch so stark zum Ausdruck, dass man diese Bastarde unbedingt zu den Buschleuten rechnen muss. Die Individuen neigen in Physiognomie und Wuchs bald mehr dem Neger, bald mehr dem Buschmann zu. Zwischen dem eckigen Buschmannkopf und dem runden Schädel des Negers sind die verschiedensten Verbindungen vorhanden, und von der fahlgelben bzw. rötlichgelben Hautfarbe der Buschleute bis zur rötlichschwarzbraunen Farbe der Neger zeigen sich zahlreiche Übergänge. Bereits Livingstone berichtet, dass die nördlich des Ngamisees, also in der Nord-Kalahari, lebenden Buschleute grösser, kräftiger und dunkelfarbiger seien als jene der südlichen Steppen. Tatsächlich sind in der östlichen Bastardzone Menschen von 170 cm. häufig, und diese Beobachtung war auch der Hauptgrund, dieses Menschengruppe nicht ohne weiteres als Buschleute anzuerkennen, da die Variationsbreite der Körpergrösse der letzteren zwischen 140 bis 160 cm. liegt. Am Okawango, an dem die westlichen Bastardzone beginnt, sind Individuen von 170 cm. Körperhöhe seltener und ist der Prozentsatz an ausgeprägten Buschmanntypen grösser, welcher Umstand vielleicht einen stärkeren Neigung zu Rückschlägen zugeschrieben werden könnte."

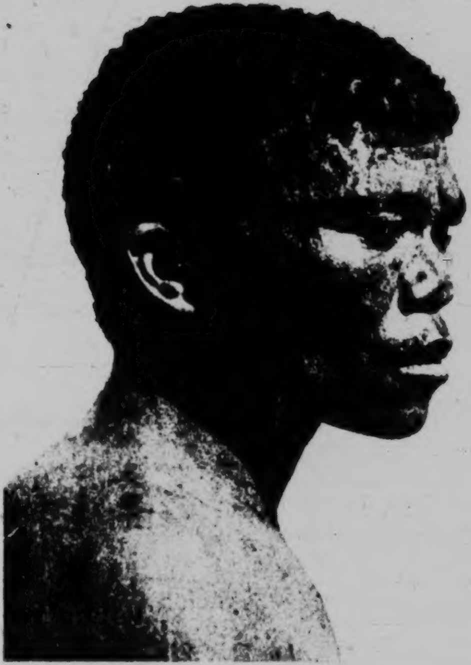
It may be taken therefore, although only stature and skin colour have so far been touched upon as the most apparent indications of variation, that the Southern Bushmen do actually represent the purest Bushman type, while the Northern tribes all show some degree of intermixture with other peoples. They are, however, of undoubted Bushman stock, and although in the following brief survey of the principal racial characters of the Bushmen the Southern tribes have been taken as the standard type, it must be understood that save where otherwise indicated the description applies equally to all the Bushmen.

The skin itself of the Bushmen is very dry and lean, with little 142
adipose tissue. It readily forms into deep wrinkles and folds, especially on the face, even in fairly young and well-nourished people. In the Northern tribes, and chiefly in the "Bastard" Bushmen, the

PLATE III

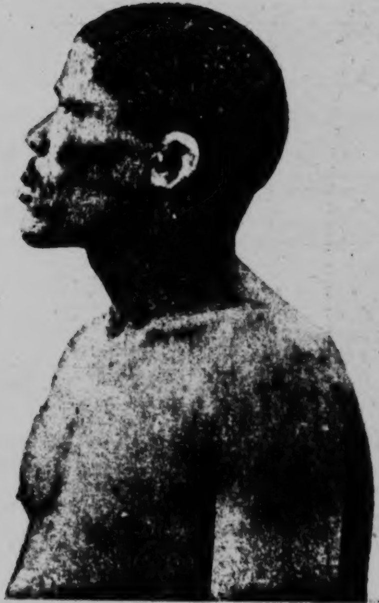
2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot
Bushmen FX10

[facing p. 56]



L. Schultze

NAMIB BUSHMAN (//OBANEN GROUP)



A. M. Cronin

/XAM (CAPE) BUSHMAN
Notice the characteristic shape of the ear

142

[*face p.* 56

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot

Bushmen FX10

142 tendency to fold is not so excessive, wrinkled features being comparatively rare in young people. There is very little hair on the body. The greater part of its surface seems completely bare; the arm-pits have only a weak show of hair, and even in the pubic regions the growth is very sparse. It is only on the scalp and occasionally on the eyebrows that the hair is at all thick. Rudimentary and irregular traces of beard and moustache are sometimes seen in the men, but rarely grow to any length or thickness. The hair is black in colour, and becomes grey only in very old people; baldness is extremely rare, even in advanced age. The hair is commonly very short and fine, but occasionally may be fairly long on the head of a woman. Such occurrences, however, seem to be rare, and it cannot be said that length of hair is a secondary sexual characteristic in the Bushmen. The hairs are tightly coiled into small spiral knots (not inappropriately referred to in popular speech as "peppercorns") which on the scalp appear to be separated by bare spots, but actually the hair follicles are distributed as in other races. In section the hair presents an elliptical contour.

141 The head in the Southern Bushmen is small and relatively broad (mesocephalic), and markedly low in the crown (platycephalic). The
142 face is broad and flat, somewhat rectangular in shape, and generally orthognathous or only slightly prognathous. The forehead is low and bulging, the cheek-bones fairly prominent, and the lower jaw relatively broad. In the Northern tribes there is a slight but distinct tendency for the head to be narrower and higher, the face appears longer and more oval in shape, and a fair degree of prognathism is
[144] often noticed. Among the Kung, and particularly among the !O Kung, one sometimes finds long narrow faces with aquiline noses and almost Semitic features, hinting at some new racial component which still remains to be determined; but even in these tribes the small rectangular Bushman facial type crops up in a number of faces with more or less negroid features.

142 The nose is generally low and very broad, especially at the root. As seen in profile, it is short and concave, but is set well back and often appears quite flat. The wings are broad, and the nostrils, which are directed forwards, have a curious splayed-out appearance. The orbits are low and the eyes set rather wide apart. The opening between the eyelids is very narrow, and often appears slightly oblique, owing to the remarkable fullness of the upper lid and the fact that a prominent fold of skin curves round from above it to the side of

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot

Bushmen FX10

142 the nose and completely covers the inner canthus of the eye. This feature has often given rise to comparisons with the Mongolian eye, and even to a completely erroneous suggestion of racial affinity between the Bushmen and the Chinese. The iris is dark brown in colour, and the small pupil often appears to blend with it. In the Northern tribes Seiner found that in the majority of cases both this characteristic fold of the upper eyelid and the narrow opening were present, although he notes that as the proportion of foreign blood increases the opening becomes wider.

The ear is another specially characteristic feature of the Bushmen. Fritsch speaks of "great, ugly ears which stand away from the head", but this description is erroneous. The true Bushman ear is short and broad, with very little or even no trace of a lobe; the upper border is almost horizontal at its commencement, and the lower border is, as it were, pressed right into the cheeks. The helix is broad and almost completely rolled in, and there is no trace of the Darwinian tubercle. Among the Kung and the Heikum Seiner found this characteristic ear present in about half the cases he examined; the rest tended to have large ears and fairly well-developed lobes.

The lips are rather thin, though a false suggestion of thickness is often conveyed by the fact that the mucous membrane is generally everted. The upper lip, seen in profile, is slightly convex. The lower lip generally projects slightly beyond the upper, and thus heightens the snout-like appearance of the mouth, as does also the retreating chin, which is of medium size and mostly rounded, although in the Northern tribes it tends to become pointed. The teeth are as a rule white and sound, though often worn down considerably in old people. Among the !O Kung, however, the teeth are said by Miss Bleek to be "very bad" even amongst the boys and girls; "probably this is a result of their living on meal and soft food, as their Kalahari brethren living on wild vegetables have most magnificent teeth."[1]

The body generally is slim in build, but well proportioned, and in spite of the small stature of the Southern Bushmen there is no suggestion of dwarfishness in their appearance. The limbs are slender, and the muscles on them form firm and well-marked cord-like projections, but the joints are large and prominent, and often give the limbs a somewhat unsightly appearance. The arms and legs are rather short in relation to the length of the trunk, in fact the Bushman

---

[1] "Bushmen of Central Angola," *Bantu Studies*, iii (1928), 106–7.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot
Bushmen FX10

142 [141] arm is the shortest on record. In the Northern tribes measured by Seiner and Werner the index of span-breadth to stature is just over 100, whereas in Europeans it is about 103 and in the Central African Pygmies as much as 106. The hands and feet are very small and narrow in proportion, the fingers and toes short and stumpy.

The outline of the body is sunken and angular, and all projections are strongly marked. The shoulders are angular, and the shoulder-blades and collar-bones stand out very strongly, owing to the thinness of the muscles and the lack of adipose tissue in the skin. The chest as a rule is fairly well developed, though its appearance is sometimes vitiated by the variable conditions of the abdomen, and especially [262] by the frequent occurrence of a pendulous belly, chiefly in young people, as the result of unfavourable diet, unrestricted gorging, and the frequent alternation between starvation and plenty. Where the food supply is at all regular, this abnormal protuberance is rarely seen. The buttocks are small but often seem prominent owing to the curious inward curvature of the spine in the lumbo-sacral region. [147] The penis, even when not in a state of erection, often extends horizontally in a semi-erect condition. This remarkable feature, portrayed also in many of the Bushman paintings of human beings, has been regarded by some recent writers, such as von Luschan and Seiner, as a special racial characteristic of the Bushmen.

The Northern Bushmen do not differ very markedly in build from their Southern relatives, although the "Bastard" tribes are on the whole better developed physically. They have stronger limbs, with arms and legs slightly longer in proportion; the shoulders are more rounded, and the chest seen to better advantage. The protuberant abdomen and the marked hollow of the back due to the lumbo-sacral curvature are present in most individuals. [147 144] The hands and feet are slightly bigger, the fingers and toes longer. The horizontal projection of the penis was noted by Seiner in about three-fifths of the men he examined. He states that with admixture of Bantu blood it begins to droop, so that there does appear to be some racial significance attached to this feature. Its occurrence has not yet been physiologically explained, although Seiner suggests that it may be due to a strong development of the *Ligamentum suspensorium penis.*

142 147 The female body, like that of the male, is generally slender, the limbs slight, the hands and feet small. In mature women, however, there is often found a strong accumulation of fat on the thighs and especially on the buttocks, a character known as steatopygia, which

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot FX13

Bushmen FX10

B
142
147

may occasionally be seen in the men also. Strongly-marked steatopygia is not very frequent, however, and in spite of the many statements to the contrary it cannot be regarded as a racial peculiarity. Fritsch, indeed, and other acute observers even look upon the occurrence of steatopygia in Bushwomen as indicating the presence of Hottentot blood. However this may be, it is certain that steatopygia is not as prominent a feature of Bushwomen as is sometimes asserted. In the Northern Bushwomen it seldom occurs.

The breasts in young girls are small and conical, with well-marked nipples; after puberty they become somewhat pendulous, and in the older women who have given birth to several children they hang very low and are often in an extremely shrivelled condition. The genital organs are notable for a frequent hypertrophy of the labia minora—the so-called "Hottentot apron"—which are sometimes considerably elongated, and may project as much as 10 cm. beyond the rima pudendi. This appears to be a physiological feature, and not artificially produced by manipulation, as has sometimes been suggested. It is found in the Northern tribes also, but is not peculiar to Bushwomen, since it is common among the Hottentots as well as among various East African peoples.

B
142
141

It will be seen from this description that all the Bushmen are on the whole fundamentally of the same physical type, although the Northern tribes vary in certain features from the Southern. It is impossible to draw any clear-cut line of distinction between the different tribes. There is rather a continuous gradation of characters, the type gradually becoming more impure the further north and east we go. The general tendency is for the Northern Bushmen to be taller, often considerably taller, than their Southern relatives; they have a darker colour, and better muscular development, relatively narrower and higher heads and faces, and show certain negroid characteristics in their facial features and bodily build. These divergent tendencies, it is evident, are the result of racial intermixture with other peoples, principally Bantu negroids; and the process of intermixture is still continuing. Seiner's designation of these Northern tribes as "Bastard Bushmen" is well founded, and there can be no doubt that they are all by now to some extent at least a hybrid people as far as physical characters are concerned.

HOTTENTOTS

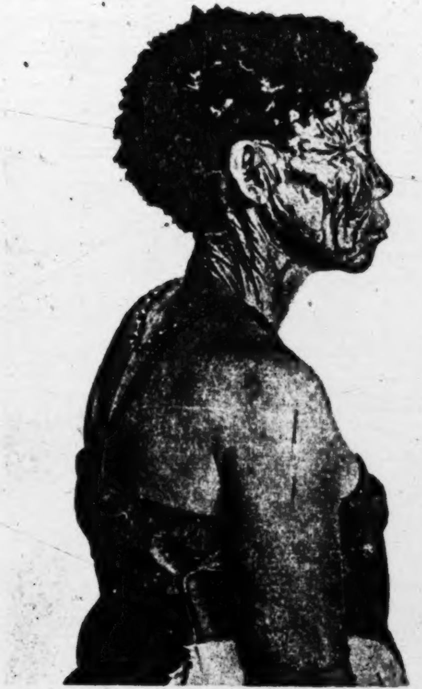
H
141
142

The Hottentots resemble the Southern Bushmen very closely in appearance. It is only in stature and shape of the head that significant

PLATE IV

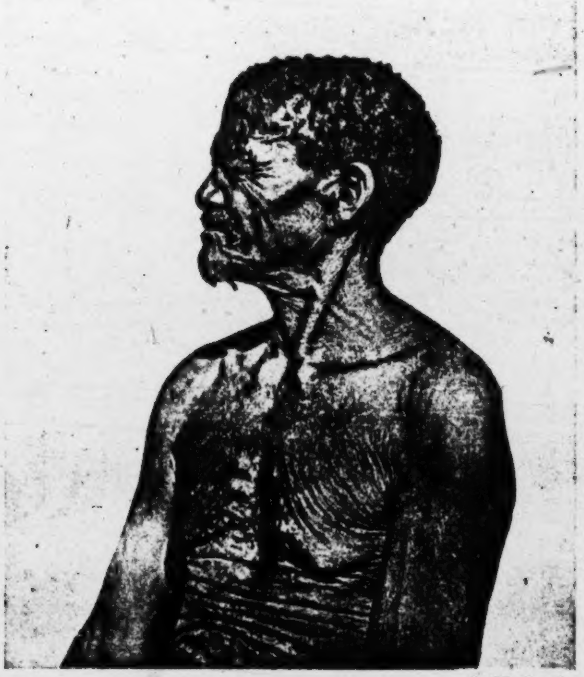
2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot FX13
Bushmen FX10

[Facing p. 60]



KORA (HOTTENTOT) WOMAN
Notice the excessive facial wrinkling

H
142
301



A. M. Cronin

"MOSARWA" BUSHMAN, S. KALAHARI

B
142

[face p. 60

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot FX13

Bushmen FX10

B H 142

somewhat larger than in Bushmen, and while it does not display the same well-marked peculiarities as the Southern Bushman ear is, on the whole, strongly reminiscent of it, especially in shape and in the well-rolled helix. There is generally a moderate lobe, although occasionally the ear is lobeless, as in pure-blooded Bushmen. The lips are thin, the mucous membrane everted, and there is the same convexity of the upper lip as in the Bushmen. The lips project considerably, the lower slightly beyond the upper, giving the mouth a snout-like appearance, which may also be noticed in some of the Bushmen. This projection of the lips easily conveys the impression of great prognathism, owing to the flatness of the nose and the retreating chin; but actually the degree of prognathism is slight, although greater than in the Cape Bushmen.

In build there is also a great similarity between Hottentots and Bushmen. The bodies of the Hottentots are slender, and the limbs very slight; good muscular development is rare, the muscles generally being thin and cord-like. The legs are rather long in proportion to the trunk, while the arms, again, are short; the hands and feet are small and narrow, like those of the Bushmen. The hips project but little, and the protuberant belly seen in the Southern Bushmen does not occur to the same extent, although it is also often found in small children. The buttocks are small, but may appear prominent owing to the strong inclination of the pelvis and the hollow back, features already noted in the Bushmen as well. The horizontal position of the penis found in pure-blooded Bushmen is occasionally seen in the Hottentots, but is comparatively rare.

B H [147]

The breasts of the girls, like those of the Bushmen girls, are proportionately small and conical, with projecting nipples; but in mature women they become quite limp, and hang flat against the body. Steatopygia is far more common and more pronounced than in Bushwomen; it is found in the women of all the Hottentot tribes, although it tends to disappear where there is any great degree of intermixture with other peoples. Elongation of the labia minora is also very often found as a physiological feature. Although this cannot be regarded as a racial peculiarity, the fact is noteworthy that it occurs far more frequently in Khoisan women than in the women of any of the other South African peoples.

B H 142 147

Relationship Between Bushmen and Hottentots

B H 144 141 142

The Hottentots and Bushmen are so much alike in physical characters and so distinct in appearance from the other inhabitants of

South Africa that we cannot but look upon these two peoples as very closely allied in race. Both the Cape Bushmen and the Hottentots have a brownish-yellow skin colour; black, spiral, sparsely-distributed hair; low heads and faces, broad flat noses with low bridges, widely separated eyes with narrow openings and a strong development of the upper lid; steatopygia and elongation of the labia minora. The Hottentots, however, are taller; their heads are larger in length and height, and prevalently dolicocephalic; their faces slightly longer and more prognathous, and their noses slightly narrower; while steatopygia is also more common.

B
H
144
141
142

Now it has already been shown that the more northerly Bushmen are taller and darker than the Cape Bushmen, and that their heads tend to be longer and higher and proportionately narrower, while they have also a higher degree of prognathism. These divergencies, we have seen, are obviously the result of intermixture with other peoples, principally of negroid (Bantu) stock. In the Hottentots the differences from the Cape Bushmen in stature and the shape of the head are of the same nature as those found in the Northern Bushmen. On the other hand, they have the same skin colour as the Cape Bushmen, and certain peculiarities, such as steatopygia, which are more pronounced in them than even in the Bushmen, and which seldom occur in the Northern Bushmen.

In view of the comparative evidence afforded by the Northern Bushmen, it seems that we must look upon the Hottentots also as people of Bushman stock who have been influenced in physical characters by intermixture with some other racial group. The prevalent theory, as already mentioned, is that this new component was derived from the light-skinned Hamitic stock. Shrubsall, however, working upon skeletal material alone, maintains that this theory is untenable, and that the new element in the composition of the Hottentots must have been of Bantu stock. "The appearance of the Hottentot skulls," he says, "in no way suggests any marked intermediate characters between those of Bushmen and of any more Hamitic race, while in the features in which they differ from the Bush crania they certainly resemble negroes . . . When the distribution of the various cranial and facial indices is compared it may be seen that the Hottentot in almost every case is intermediate between the Bushmen and the Bantu negroes . . . It can be shown that while the Hottentot measurements are in some respects intermediate between those of Bushmen and of Hamites, they are more nearly intermediate between the

B
H
144
141

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot FX13

Bushmen FX10

B H 144 141

Bushmen and the Bantu, and where they show this least they resemble the Sudanese negro more than the Hamite."[1]

B H 142 144

The fact that the Northern Bushmen, who have unquestionably been affected by racial intermixture with the Bantu, tend to diverge from the Cape Bushmen in the same cranial features as do the Hottentots might seem to support this view. On the other hand, these Northern Bushmen have also acquired a darker skin colour, while the Hottentots are as light in colour as the Cape Bushmen; and, again, as von Luschan has shown, occasionally one finds facial features in the Hottentots which are strongly reminiscent of the Hamitic type, and can only be regarded as reversions to it (cf. Plate V).[2] Schultze also comments upon the same fact, and shows that in several of the men whose physical characters he investigated statures well above the mean were combined with long faces and narrow noses, features indicative of Hamitic influence.[3] Moreover, although such evidence cannot be adduced as conclusive in a discussion of purely racial origins, it is surely not without some bearing upon this question that the languages of the Hottentots present affinities to those of the Hamitic language family, and that their cattle and sheep are of the breeds associated in Africa with Hamitic culture.

The craniological evidence is opposed to the conclusion that the Hottentots are a true Bushman-Hamitic cross without a negro element; but the other factors noted suggest that some Hamitic element at least must have entered into the composition of the Hottentots. In this connection it must be mentioned that the Bantu themselves are negroes who have been affected to some extent by Hamitic admixture. Consequently the resemblance in cranial characters between the Hottentots and the Northern Bushmen need not necessarily argue against the presence of Hamitic blood in the former. It seems reasonable, therefore, to assume that the Hottentots may represent a mixture of people of Bushman stock with both Hamites and negroes, or perhaps with an earlier mixture of the two latter stocks having a predominantly Hamitic culture. The fact that the racially pure Hottentots now vary but slightly amongst themselves suggests that this intermixture which gave rise to them is of very long standing, and hence probably originated before they came into South Africa.

---

[1] F. C. Shrubsall, "The Pygmy and Negro Races of Africa," *Lancet*, 1908 (January–June), p. 985.

[2] "Hamitische Typen," in C. Meinhof, *Die Sprachen der Hamiten*, 1912, pp. 252–3.

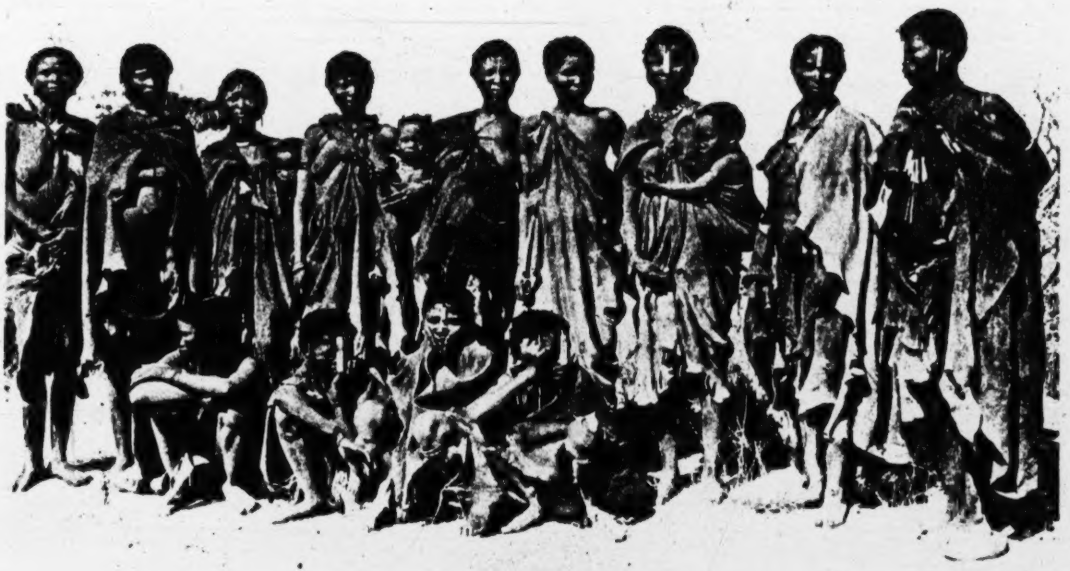
[3] Op. cit., p. 213.

PLATE VII

2: Schapera E-4,5 (no date)1930
FX13 Hottentot
Bushmen FX10

142
291
301
302
854

[facing p.118]



L. Fourie

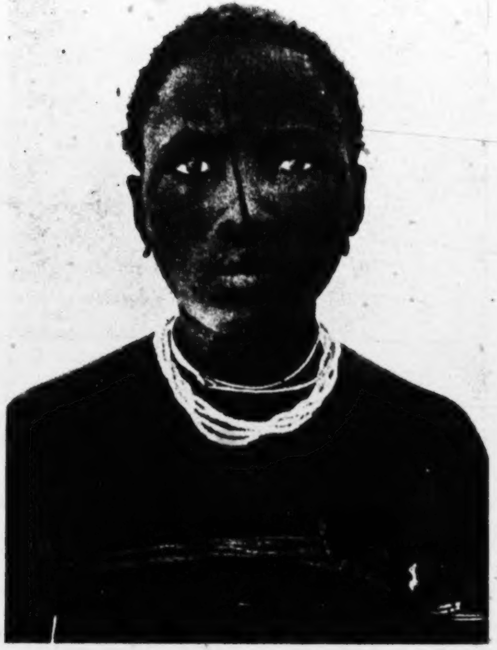
GROUP OF AUEN WOMEN AND CHILDREN
Notice the clothing and ornaments, and the mode of carrying the babies

[*face p.* 118

PLATE VIII

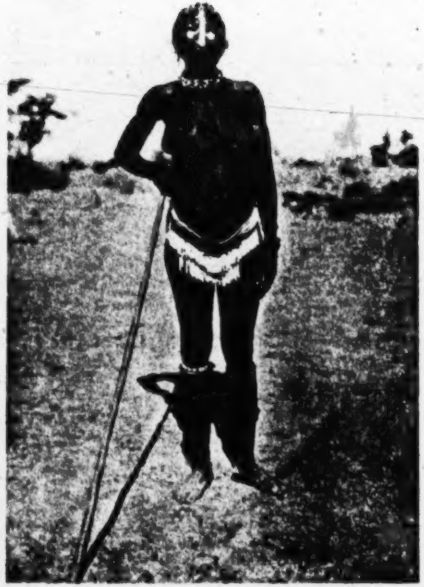
142
291
301
516

[facing p. 122]



L. Fourie

AUEN GIRL



L. Fourie

NARON WOMAN IN CEREMONIAL DRESS OF BEADWORK

[face p. 122

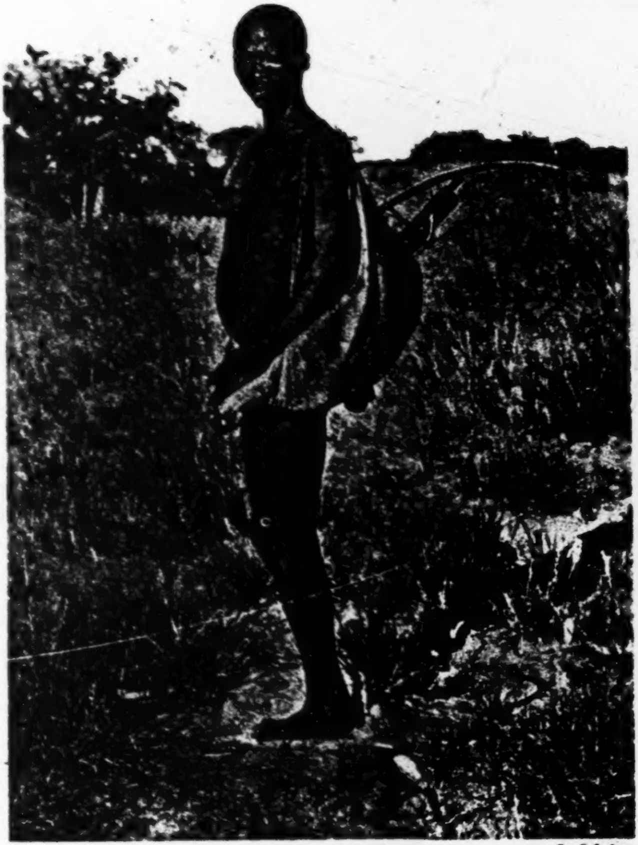
2:Schapera E-4,5 (no date)1930
FX13 Hottentot
Bushmen FX10

2: Schapera E-4, 5 (no date) 1930

FX13 Hottentot
Bushmen FX10

PLATE X

142
411
516



L. Schultze

"MOSARWA," S. KALAHARI,
Carrying Bow and Quiver

[*face p.* 140